FIIG A342

Reprint Date: September 3, 2010

## FEDERAL ITEM IDENTIFICATION GUIDE

# CYLINDER AND CYLINDER ASSEMBLIES, HYDRAULIC AND PNEUMATIC

This Reprint replaces FIIG A342, dated December 3, 2004.



#### Commander

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BY ORDER OF THE DIRECTOR

/s/

Commander

Defense Logistics Information Service

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## **GENERAL INFORMATION**

## 1. Purpose and Scope

This Federal Item Identification Guide (FIIG) is a self-contained document for the collection, coding, transmittal, and retrieval of item characteristics and related supply management data for an item of supply for logistical use. This FIIG is to be used to describe items of supply identified by the index of approved item names appearing in this section.

#### 2. Contents

This FIIG is comprised of the following:

Index of Approved Item Names Covered by this FIIG

Applicability Key Index

Section I - Item Characteristics Data Requirements

Section III - New text that should be here.

Appendix A - Reply Tables

Appendix B - Reference Drawing Groups (as applicable)

Appendix C - Technical Data Tables (as applicable)

## a. Index of Approved Item Names Covered by this FIIG:

The index lists the approved item names with definitions and item name codes as they appear in Cataloging Handbook H6, applicable to this FIIG. In addition, each name entry is assigned an applicability key for use in relating the characteristics requirements in Section I to the specific item name.

#### b. Applicability Key Index:

The purpose of this index is to provide the user with a ready reference for determining the specific requirements which are applicable to a given approved item name. This index lists all requirements in sequence as they appear in the FIIG. The applicability of a Master Requirement Coded requirement is indicated by the column headed by the specific item name applicability key as follows:

- (1) The letter "X" indicates the requirement must be answered for a full descriptive item.
- (2) The letters "AR" indicate the requirement is to be answered as required by (1) instructional notes within the FIIG; (2) when the reply is predicated on replies to a related main requirement; or (3) when an asterisk (\*) is used in conjunction with the applicability key column in Section I.
- (3) A blank in the column indicates the requirement is not applicable to the specific item name.

## c. Section I - Item Characteristics Data Requirements:

This section contains the physical and performance characteristics requirements needed to describe and identify an item of supply. These characteristics differentiate one item from all other items of supply and are to be used to meet the needs of all supported functions. This section is arranged in columns. Identification of each column and instructions pertinent thereto are as follows:

## (1) Applicability Key:

The first column shows the applicability key(s) for each requirement. It indicates whether the requirement need be satisfied for the item being identified. "ALL" indicates that the requirement must be answered for all items covered by the FIIG. One or more alphabetic character(s) or group of one or more alphabetic characters indicates a response is required when describing items with an approved item name or names represented by the key(s). An asterisk (\*) used in conjunction with any applicability key indicates that the characteristic stated in the requirement may not be applicable to all items covered by the FIIG.

## (2) Master Requirement Codes (MRC):

A four-position code which is assigned to a FIIG requirement for identification of the requirement, cross-referencing requirements in the various sections and appendices of the FIIG, and for mechanized processing and retrieval of FIIG generated data. Absence of a MRC for a requirement indicates a lead-in to requirements with individual MRCs in Appendix B.

(a) The coding technique for providing MULTIPLE/OPTIONAL responses will not be used for a Section I requirement assigned Mode Code A or L that leads to Appendix B sketches with dimensional requirements.

## (b) Identified Secondary Address Coding:

This technique is for extending the Master Requirement Code so that a unique address is provided for each application of the requirement in relation to the item and is authorized only as instructed within the requirement. Responses coded through this technique will always consist of the following: (1) Master Requirement Codes, (2) indicator code (a single numeric character determined by the number of positions contained), (3) identified secondary address code (1 to 3-digit alphabetic codes determined by the number of predicted replies), (4) the mode code, (5) the reply code and/or clear text response, and (6) end with a record separator (\*). Steps (1) through (6) are repeated for each application of the requirement.

#### (c) AND/OR coding:

A technique for extending the Master Requirement Code to provide a distinctive address for multiple responses to the same requirement. Responses coded through this technique will always consist of (1) Master Requirement Code, (2) mode code, (3) the response or reply code (as instructed by the requirement), (4) a single dollar sign (\$) for an OR condition, or a double dollar sign (\$\$) for an AND condition, (5) the mode code, (6) the response or reply code

(followed by conditions (4) through (6) for each of the multiple responses) and (7) end with a record separator (\*). NOTE: Apply this technique only when instructed by the requirement sample reply (e.g.).

#### (3) Mode Code:

A one-position alphabetic code that specifies the manner in which a response will be prepared. Each requirement assigned a MRC is also assigned a mode code. Sample replies follow each FIIG requirement displaying the proper construction of a response for the assigned mode code. The response to a requirement will always be prepared in accordance with the assigned mode code and sample reply except in the following instances:

- (a) Use of E Mode Code replies is not authorized. If a reply needed to describe an item is not listed in the applicable table, contact the FIIG Initiator.
- (b) Mode Code K may not be used for any requirement unless instructed by the requirement instructions.

## (4) Requirement:

This portion includes the characteristics data elements and data use identifiers required to identify and differentiate one item of supply from another, narrative definitions, and explanations as to use and method of expression. Instructions for coding and preparing replies are also provided.

## (5) Reply Code:

A code that represents an established authorized reply to a requirement.

d. Section III - Supplementary Technical and Supply Management Data:

This section includes those characteristics requirements necessary to support specific logistics functions other than National Stock Number assignment.

## e. Appendix A - Reply Tables:

Tables of authorized replies to requirements and reply codes when the tables are too lengthy for inclusion in Section I/III, when applicable.

## f. Appendix B - Reference Drawings:

This appendix contains representative illustrations which portray specific variations of one or more generic characteristics. If reference drawings contain requirements pages to be used in conjunction with illustrations for dimensioning purposes, the requirements pages will contain Master Requirement Codes, mode codes, and a statement of the requirement. A response to requirements on a requirements page is necessary only for those Master Requirement Codes applicable to the illustration selected.

## g. Appendix C - Technical Data Tables:

This appendix contains conversion charts and similar data pertinent to the requirements in Section I/III, when applicable.

3. Enter administrative MRC CLQL immediately following the last FIIG requirement reply, as instructed below:

MRC	Mode Code	Requirement	<u>Example</u>
CLQL	G	COLLOQUIAL NAME (common usage name by which an item is known)	CLQLGWOVEN WIRE CLOTH*

- 4. Special Instructions and Indicator Definitions
  - a. Measurements:

Unless otherwise indicated within a requirement example, enter all measurements in decimal form, carried to the nearest three decimal places, with a minimum of one digit preceding the decimal. For SI (metric), enter all measurements with a minimum of one digit before and after the decimal. For fraction to decimal conversion, see Appendix C.

#### b. Indicators:

A cross hatch (#) following an AIN, MRC, Reply Code or Drawing Number indicates for "ALL EXCEPT USA" use only.

#### 5. Indexes

a. Index of Data Requirements

This index is arranged in alphabetic sequence by Master Requirement Code, cross-referenced to the applicable data requirement and page number(s).

b. Index of Approved Item Names

This index is arranged in alphabetic sequence referenced to Applicability Key.

c. Applicability Key Index

This index is arranged in Applicability Key Sequence.

## 6. Maintenance

Requests for revisions and other changes will be directed to:

## FIIG A342 GENERAL INFORMATION SECTION I/III REQUIREMENTS INDEX

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## FIIG A342 GENERAL INFORMATION INDEX OF APPROVED ITEM NAMES COVERED BY THIS FIIG

## INDEX OF APPROVED ITEM NAMES COVERED BY THIS FIIG

Approved Item Name	<u>INC</u>	<u>App Key</u>
ACTUATOR, HYDRAULIC-PNEUMATIC, LINEAR	37304	G

A self-contained power transmitting device designed to convert hydraulic or pneumatic force into controlled mechanical force in the form of linear (straight line) mechanical movement. The linear motion is limited in regards to travel distance. Excludes hydraulic and pneumatic cylinders and screwjacks.

## ACTUATOR, HYDRAULIC-PNEUMATIC, 37318 L ROTARY

A self-contained power transmitting device designed to convert hydraulic or pneumatic force into controlled mechanical force in the form of torque (rotational mechanical movement limited to less than 360 degrees). The linear motion of the hydraulically or pneumatically operated power piston and shaft is converted to rotary motion in the output shaft through such linkage as rack and pinion, pin and yoke, a connecting link, and the like. Excludes hydraulic and pneumatic cylinders and screwjacks.

## Cylinder

1. (Mechanical) A chamber designed to permit the reciprocating movement of a piston within. It is circular in cross section, the length being greater than the diameter.

## CYLINDER (1), ACTUATING, LINEAR 22017 B

A cylinder designed to house a piston and other necessary component parts of a CYLINDER ASSEMBLY, ACTUATING, LINEAR. Do not use if a more specific name applies.

CYLINDER ASSEMBLY, ACTUATING,	31310	G
LINEAR		

A cylinder containing a piston and other conponent parts designed to develop linear motion required to operate a given object(s) with energy generated from either pneumatic or hydraulic pressure(s). See also CYLINDER, ACTUATING, LINEAR. Do not use if a more specific name applies.

CYLINDER ASSEMBLY, ACTUATING,	37319	L
ROTARY		

A cylinder containing a piston and other component parts designed to develop rotary motion (limited to less than 360 degrees) required to operate a given object(s) with energy generated from either pneumatic or hydraulic pressure(s). Do not use if a more specific name applies.

## FIIG A342 GENERAL INFORMATION INDEX OF APPROVED ITEM NAMES COVERED BY THIS FIIG

Approved Item Name	INC	App Key
CYLINDER ASSEMBLY, HYDRAULIC BRAKE, MASTER	11007	Н
A device consisting of a reservoir and/or CYLINDER, components necessary to displace fluid from a central hydraulic brake system.		
CYLINDER ASSEMBLY, HYDRAULIC BRAKE, WHEEL	10862	J
A device consisting of a CYLINDER, HYDRAULIC I component parts which is mounted to the back plate of create the linear motion required to operate the brake s	f a wheel. It uses th	e flow and pressure of a fluid to
CYLINDER ASSEMBLY, PENUMATIC BRAKE, WHEEL	41527	J
A device consisting of a pneumatic cylinder(s) with a pressure of compressed air to create the linear motion brake system.		
CYLINDER, COUNTERRECOIL	21650	A
A cylinder with component parts designed to compress CYLINDER, RECUPERATOR.	s fluid for the recup	perator assembly of a gun. See also
CYLINDER (1), HYDRAULIC ACCUMULATOR	27691	С
A cylinder designed to house a piston and other necess	sary component par	rts of a hydraulic accumulator.
CYLINDER (1), HYDRAULIC BRAKE, MASTER	10935	D
A cylinder, usually incorporating an integral reservoir, CYLINDER ASSEMBLY, HYDRAULIC BRAKE, M		the necessary component parts of a
CYLINDER (1), HYDRAULIC BRAKE, WHEEL	10861	E
A cylinder designed to house the piston and other nece HYDRAULIC BRAKE, WHEEL.	essary component p	parts of a CYLINDER ASSEMBLY
CYLINDER (1), PNEUMATIC BRAKE, WHEEL	48943	Е

A cylinder, designed to house the other necessary component parts of a CYLINDER ASSEMBLY, PNEUMATIC BRAKE, WHEEL.

# FIIG A342 GENERAL INFORMATION INDEX OF APPROVED ITEM NAMES COVERED BY THIS FIIG

Approved Item Name INC App Key

CYLINDER (1), RECIPROCATING, 21825 F

COMPRESSOR

A cylinder designed to compress air or gas from an initial intake pressure to a higher discharge pressure. Excludes cylinder assemblies.

CYLINDER, RECOIL 21651 A

A cylinder with component parts designed to cushion the backward motion of a cannon by springs or by the slow passage of air or fluid through holes in the piston when the gun is firing.

CYLINDER, RECUPERATOR 21652 A

A cylinder with component parts designed to return a cannon to proper firing position after recoil. See also CYLINDER, COUNTERRECOIL.

CYLINDER, REPLENISHER 31630 A

A cylinder with component parts designed as a reservoir to maintain a constant fluid pressure and volume in the recoil cylinder of a gun. Excludes CYLINDER (1), HYDRAULIC ACCUMULATOR and CYLINDER ASSEMBLY, ACTUATING, LINEAR.

SERVOCYLINDER 31309 K

A hydraulically or pneumatically powered actuating cylinder with provisions for directional control (positioning) in direct relation with a primary control of comparatively low level force. The primary control input to the servocylinder may be mechanical and/or electrical.

SERVOCYLINDER ASSEMBLY, 61964 G HYDRAULIC

An assembly consisting of two or more hydraulic servocylinders on a common mounting, with one or more servocylinders performing a separate function unrelated to the function(s) of the remaining cylinder(s). Excludes a servocylinder with two or more cylinders which performs a single function.

## **APPLICABILITY KEY INDEX**

	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>	<u>H</u>	<u>J</u>	<u>K</u>
NAME	X	X	X	X	X	X	X	X	X	X
CKSD					X		X		X	X
CKRM							AR			AR
AKRE							AR			AR
ABMK	AR									
ABHP		X	X	X	X	X				
ABKW	AR									
ADAV	AR									
ATEM	X						X	AR	AR	X
AMQZ	X						X	AR	AR	X
ADAR	AR									
AAFZ	X	X	X	X	X	X	X	X	X	X
ASBP					X				X	
ABXV	X	X	X	X	X	X	X	X	X	X
ADGE					X	X				
CKSF	AR						AR	AR	AR	AR
AAHB										AR
AMDX										AR
AMEA										AR
AMPC										AR
CDTR										AR
CLMB										AR
CLMD										AR
CLMG										AR
CLMJ										AR
AAHR										AR
AMGS										AR
AMHA										AR
AMPM										AR
CDTS										AR
CLMC										AR
CLMF										AR
CLMH										AR
CLMK										AR
CKSG	X						AR	AR	AR	X
CKSH	X						AR	AR	AR	X
CKSJ	X						AR	AR	AR	X
CTXC	X						AR	AR	AR	X
CKSK	X						AR	AR	AR	X
CKSL	X						AR	AR	AR	X
CKSM	X						AR	AR	AR	X
CLLP	AR						AR	AR	AR	AR
CLLQ	AR						AR	AR	AR	AR
AAHB										AR
AMDX										AR
AMEA										AR
AMPC										AR
CDTR										AR
								1	1	

CLMB										AR
CLMD										AR
CLMG										AR
CLMJ										AR
AAHR										AR
AMGS										AR
AMHA										AR
AMPM										AR
CDTS										AR
CLMC										AR
CLMF										AR
CLMH										AR
CLMK										AR
CLLR	AR						AR	AR	AR	AR
CLLS	AR						AR	AR	AR	AR
CLLT	AR						AR	AR	AR	AR
CTXD	AR						AR	AR	AR	AR
CLLW	AR						AR	AR	AR	AR
CLLX	AR						AR	AR	AR	AR
CLLY	AR						AR	AR	AR	AR
		۸D	۸D	۸D	۸D	A D				
CLML	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
ABDR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
BBBW	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
AFDS	AR	AR	AR	AR	AR			AR	AR	AR
AFDT	AR	AR	AR	AR	AR			AR	AR	AR
AFDV	AR	AR	AR	AR	AR			AR	AR	AR
AFDW	AR	AR	AR	AR	AR			AR	AR	AR
AZCR	AR	AR	AR	AR	AR			AR	AR	AR
CLMR	AR	AR	AR	AR	AR			AR	AR	AR
CDTD	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
CDTF	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
CDTG	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
CTXF	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
AKBM	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
AKBN	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
CLMN	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
CLMP	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
CLMQ	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
ABKP	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
ABGC	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
ABGD	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
CLMS	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
CLMT	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
CLMW	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
CLMX	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
CLMY	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
CTXG	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
CLMZ	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
CLNB	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
AJFY	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
AJFZ	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
AARX	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
ABHE	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
CLNC									AR	
ABJH	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
BGST							AR			AR
BBJX				X	X				X	

BFMF						AR				
CLND					AR			AR	AR	
BMWH				AR				AR		
CLNF				AR				AR		
ABWV				AR				AR		
AGRC				AR				AR		
AFLW				X				X		
CLNG				AR				AR		
CLNH				AR				AR		
CLNK				AR				AR		
CTXH				AR				AR		
CLNL				AR				AR		
CLNM				AR				AR		
CBBL				AR	AR		AR	AR	AR	
FEAT	AR									
TEST	AR									
SPCL	AR									
ZZZK	AR									
ZZZT	AR									
ZZZY	AR									
CRTL	AR									
PRPY	AR									
ELRN	AR									
NHCF	AR									
ELCD	AR									
ENAC	AR									
BBRJ	AR									
AFJN	AR									
ADZC	AR									
AGAV	AR									
SURF	AR									
SUPP	AR									
ZZZV	AR									
CXCY	AR									
HZRD	AR									

	<u>L</u>
NAME	X
CKSD	X
CKRM	AR
AKRE	AR
ABMK	AR
ABKW	AR
ADAV	AR
ADAR	AR
AAFZ	X
ABXV	X
AKCT	X
BLFW	AR
AWQM	AR
CKSF	AR
CKSG	AR AR
CKSH CKSJ	AR
CTXC	AR
CKSK	AR
CKSL	AR
CKSM	AR
CKSM CLLP	AR
CLLQ	AR
CLLR	AR
CLLS	AR
CLLT CTXD	AR
CTXD	AR
CLLW	AR
CLLX	AR
CLLY	AR
CLML	AR
ABDR	AR
BBBW	AR
AFDS AFDT	AR AR
AFDV	AR
AFDW	AR
AZCR	AR
CLMR	AR
CDTD	AR
CDTF	AR
CDTF CDTG	AR
CTXF	AR
AKBM	AR
AKBN	AR
CLMN CLMP	AR
CLMP	AR
CLMQ	AR
ABKP	AR
ABGC	AR
ABGD CLMS	AR AR
CLMS	AK ΔR

CLMT

AR

CLMW	AR
CLMX	AR
CLMY	AR
CTXG	AR
CLMZ	AR
CLNB	AR
AJFY	AR
AJFZ	AR
AARX	AR
ABHE	AR
ABJH	AR
BGST	AR
CBBL	AR
FEAT	AR
TEST	AR
SPCL	AR
ZZZK	AR
ZZZT	AR
ZZZY	AR
CRTL	AR
PRPY ELRN NHCF	AR AR
ELCD ENAC	AR AR AR
BBRJ	AR
AFJN	AR
ADZC	AR
AGAV	AR
SURF	AR
SUPP	AR
ZZZV	AR
CXCY	AR
HZRD	AR

## **SECTION I**

APP

Key MRC Mode Code Requirements

**ALL** 

NAME D ITEM NAME

Definition: A NOUN, WITH OR WITHOUT MODIFIERS, BY WHICH A ITEM OF SUPPLY IS KNOWN.

Reply Instructions: Enter the applicable Item Name Code from the index appearing in the General Information Section. (e.g., NAMED22017\*)

E, G, J, K, L

CKSD H DESIGN CHARACTERISTICS

Definition: AN INDICATION OF THE DESIGN CHARACTERISTICS OF THE ITEM.

Reply instructions: Enter the applicable Reply Codes from Tables 1 and 2 below. (e.g., CKSDHAEYX\*)

Table 1

REPLY CODE
B DOUBLE ACTING
A SINGLE ACTING

Table 2

REPLY CODE
FGW FOUR CYLINDER
EYX SINGLE CYLINDER
FFF TANDEM CYLINDER
FFT TRIPLE CYLINDER
EYY TWIN CYLINDER

G\*, K\*, L\*

CKRM D INTEGRAL VALVE OPERATION METHOD

Definition: THE MEANS USED TO OPERATE THE INTEGRAL VALVE.

APP

Key MRC Mode Code Requirements

Reply Instructions: Enter the applicable Reply Code from the table below. (e.g., CKRMDAAGB\*; CKRMDAABF\$DAADG\*)

REPLY CODE
AAGB
ELECTRIC
AABF
HYDRAULIC
AADG
MECHANICAL
AAGC
PNEUMATIC

NOTE FOR MRC AKRE: IF REPLY CODE AAGB IS ENTERED FOR MRC CKRM, REPLY TO MRC AKRE.

G\*, K\*, L\* (See Note Above)

AKRE J VOLTAGE RATING IN VOLTS

Definition: THE VOLTAGE RATING AT WHICH THE ITEM IS DESIGNED TO OPERATE, EXPRESSED IN VOLTS.

Reply Instructions: Enter the applicable Reply Code from the table below, followed by the numeric value. (e.g., AKREJC28.0\*)

REPLY CODE REPLY (AB62)

B AC C DC

ALL\*

ABMK J OVERALL WIDTH

Definition: AN OVERALL MEASUREMENT TAKEN AT RIGHT ANGLES TO THE LENGTH OF AN ITEM, IN DISTINCTION FROM THICKNESS.

Reply Instructions: Enter the applicable Reply Codes from Tables 1 and 2 below, followed by the numeric value. (e.g., ABMKJAA2.725\*; ABMKJLA69.2\*; ABMKJAB2.715\$\$JAC2.735\*)

Table 1

REPLY CODE
A INCHES
L MILLIMETERS

**APP** 

Key MRC Mode Code Requirements

 Table 2

 REPLY CODE
 REPLY (AC20)

 A
 NOMINAL

 B
 MINIMUM

 C
 MAXIMUM

B, C, D, E, F

ABHP J OVERALL LENGTH

Definition: THE DIMENSION MEASURED ALONG THE LONGITUDINAL AXIS WITH TERMINATED POINTS AT THE EXTREME ENDS OF THE ITEM.

Reply Instructions: Enter the applicable Reply Codes from Tables 1 and 2 below, followed by the numeric value. (e.g., ABHPJAA13.875\*; ABHPJLA352.4\*; ABHPJAB13.865\$\$JAC13.885\*)

Table 1

REPLY CODE A REPLY (AA05)
A INCHES

L MILLIMETERS

Table 2

REPLY CODE
A NOMINAL
B MINIMUM
C MAXIMUM

ALL\*

ABKW J OVERALL HEIGHT

Definition: THE DISTANCE MEASURED IN A STRAIGHT LINE FROM THE BOTTOM TO THE TOP OF AN ITEM.

Reply Instructions: Enter the applicable Reply Codes from Tables 1 and 2 below, followed by the numeric value. (e.g., ABKWJAA3.187\*; ABKWJLA81.0\*; ABKWJAB3.177\$\$JAC3.197\*)

Table 1

REPLY CODE
A INCHES
L MILLIMETERS

**APP** 

Key MRC Mode Code Requirements

 Table 2

 REPLY CODE
 REPLY (AC20)

 A
 NOMINAL

 B
 MINIMUM

 C
 MAXIMUM

ALL\*

ADAV J OVERALL DIAMETER

Definition: A MEASUREMENT OF THE LONGEST STRAIGHT LINE ACROSS A CIRCULAR CROSS-SECTIONAL PLANE.

Reply Instructions: Enter the applicable Reply Codes from Tables 1 and 2 below, followed by the numeric value. (e.g., ADAVJAA3.225\*; ADAVJAB3.215\$\$JAC3.235\*)

Table 1

REPLY CODE
A INCHES
L MILLIMETERS

Table 2

REPLY CODE
A NOMINAL
B MINIMUM
C MAXIMUM

A, G, H\*, J\*, K

ATEM J EXTENDED LENGTH

Definition: A MEASUREMENT OF THE LONGEST DIMENSION OF AN ITEM WHEN IT IS IN AN EXTENDED POSITION, IN DISTINCTION FROM WIDTH.

Reply Instructions: Enter the applicable Reply Codes from Tables 1 and 2 below, followed by the numeric value. (e.g., ATEMJAA12.375\*; ATEMJAB12.365\$\$JAC12.385\*)

Table 1

REPLY CODE A INCHES
L MILLIMETERS

**APP** 

Key MRC Mode Code Requirements

 Table 2

 REPLY CODE
 REPLY (AC20)

 A
 NOMINAL

 B
 MINIMUM

 C
 MAXIMUM

A, G, H\*, J\*, K

AMQZ J COMPRESSED LENGTH

Definition: A MEASUREMENT OF THE SMALLEST LENGTH TO WHICH THE ITEM MAY BE COMPRESSED, IN DISTINCTION FROM WIDTH.

Reply Instructions: Enter the applicable Reply Codes from Tables 1 and 2 below, followed by the numeric value. (e.g., AMQZJAA9.125\*; AMQZJAB9.115\$\$JAC9.135\*)

Table 1

REPLY CODE
A INCHES
L MILLIMETERS

Table 2

REPLY CODE
A NOMINAL
B MINIMUM
C MAXIMUM

ALL\*

ADAR J BODY OUTSIDE DIAMETER

Definition: THE LENGTH OF A STRAIGHT LINE WHICH PASSES THROUGH THE CENTER OF THE BODY, AND TERMINATES AT THE OUTSIDE CIRCUMFERENCE.

Reply Instructions: Enter the applicable Reply Codes from Tables 1 and 2 below, followed by the numeric value. (e.g., ADARJAA2.625\*; ADARJAB2.615\$\$JAC2.635\*)

Table 1

REPLY CODE
A INCHES
L MILLIMETERS

APP

Key MRC Mode Code Requirements

Table 2

REPLY CODE
A NOMINAL
B MINIMUM
C MAXIMUM

**ALL** 

AAFZ D BODY MATERIAL

Definition: THE BASIC MATERIAL OF WHICH THE BODY IS FABRICATED.

Reply Instructions: Enter the applicable Reply Code from <u>Appendix A</u>, Table 1. (e.g., AAFZDFE0000\*; AAFZDFE0000\$\$DST0000\*; AAFZDFE0000\$DST0000\*)

E, J

ASBP D BORE TYPE

Definition: INDICATES THE TYPE OF BORE USED ON THE ITEM.

Reply Instructions: Enter the applicable Reply Code from the table below. (e.g., ASBPDAB\*; ASBPDAB\$DBB\*)

REPLY CODEREPLY (AL72)BBSTEPPEDABSTRAIGHT

NOTE: IF REPLY CODE AB IS ENTERED FOR MRC ASBP THEN DO NOT REPLY TO MRCS ALHV AND ALJU.

E\*J\*

ALHV J STEPPED BORE INSDE DIAMETER (See Note Above)

Definition: THE LENGTH OF A STRAIGHT LINE WHICH PASSES THROUGH THE CENTER OF A CIRCULAR BORE, AND TERMINATES AT THE CIRCUMFERENCE.

Reply Instructions: Enter the applicable Reply Codes from Tables 1, 2 and 3 below, followed by the numeric value. (e.g., ALHVJANDAA5.500\*; ALHVJANDLA12.5\*; ALHVJANDAB4.625\$\$JANDAC4.875\$\$JANEAA5.250\*)

REPLY (AJ91)
FIFTH STEP
FIRST STEP
FOURTH STEP
SECOND SETP
THRID STEP
<u>REPLY (AA05)</u> INCHES MILLIMETERS
<u>REPLY (AC20)</u>
NOMINAL
MINIMUM
MAXIMUM

 $E^*$ ,  $J^*$ 

ALJU J STEPPED BORE DEPTH (See Note above ALHV)

## Definition:.

Table 1 <u>REPLY CODE</u>

Reply Instructions: Enter the applicable Reply Code from Tables 1, 3 and 3 below, followed by the numeric value. (e.g., ALJUJANDAA5.375\*; ALJUJANDLA13.0\*; ALJUJANDAB5.875\$\$JANDAC6.125\$\$JANEAA4.5\*)

ANH	FIFTH STEP
AND	FIRST STEP
ANG	FOURTH STEP
ANE	SECOND STEP
ANF	THIRD STEP
Table 2	DEDLV (AAOS)
<u>REPLY CODE</u>	REPLY (AA05)
A	INCHES
L	MILLIMETERS
Table 3	

NOTE: IF REPLY CODE BB WAS ENTERED FOR MRC ASBP DO NOT REPLY TO MRCS BYXG AND BYXH.

ALL\*

#### BYXG J STRAIGHT BORE INSIDE DIAMETER

Table 1

Table 1

Definition: THE LENGTH OF A STRAIGHT LINE WHICH PASSES THROUGH THE CENTER OF A CIRCULAR BORE, AND TERMINATES AT THE CIRCUMFERENCE.

Reply Instructions: Enter the applicable Reply Codes from Tables 1 and 2 below, followed by the numeric value. (e.g., BYXGJAA3.000\*; BYXGJLA7.5\*; BYXGJAB4.625\$\$JAC4.875\*)

Tuble 1	
<u>REPLY CODE</u>	REPLY (AA05)
A	INCHES
L	MILLIMETERS
<u>Table 2</u>	
<u>REPLY CODE</u>	REPLY(AC20)
A	NOMINAL
B	MINIMUM
C	<i>MAXIMUM</i>

*E*\*, *F*\*

BYXH J STRAIGHT BORE DEPTH (SEE NOTE ABOVE BYXG)

#### Definition:

Reply Instructions: Enter the applicable Reply Code from Tables 1 and 2 below, followed by the numeric value. (e.g., BYXHJAA5.000\*; BYXHJLA12.5\*; BYXHJAB5.875\$\$JAC6.125\*)

<u>REPLY CODE</u>	REPLY (AA05)
A	INCHES
L	MILLIMETERS
<u>Table 2</u>	
REPLY CODE	REPLY (AC20)
A	NOMINAL
B	MINIMUM
C	MAXIMUM

L

## AKCT D SHAFT ROTATION DIRECTION

Definition: THE DIRECTION OF ROTATION OF A ROTATING SHAFT AS VIEWED FROM THE DRIVE END.

Reply Instructions: Enter the applicable Reply Code from the table below. (e.g., AKCTDC\*; AKCTDB\$\$DC\*)

REPLY CODE REPLY (AC04)
B CLOCKWISE

C COUNTERCLOCKWISE

L\*

BLFW B ROTATION IN DEG

Definition: THE MEASUREMENT OF ROTATION, EXPRESSED IN DEGREES.

Reply Instructions: Enter the numeric value. (e.g., BLFWB180.0\*)

L\*

AWQM J OUTPUT DRIVE TORQUE RATING

Definition: THE RATED TORQUE OF THE OUTPUT DRIVE.

Reply Instructions: Enter the applicable Reply Code from the table below, followed by the numeric value. (e.g., AWQMJG6.0\*; AWQMJD200.0\*)

REPLY CODE REPLY (AA56)

D CENTIMETER-GRAMS (gram-centimeters)

G INCH-POUNDS (pound-inches)

A, G\*, H\*, J\*, K, L\*

CKSF L FIRST PISTON ROD END STYLE

Definition: THE STYLE DESIGNATION INDICATING THE CONFIGURATION THAT MOST NEARLY CORRESPONDS TO THE APPEARANCE OF THE FIRST PISTON ROD END

Reply Instructions: Enter the applicable I/SAC from the table below, followed by the Mode Code, followed by the style number from <u>Appendix B</u>, Reference Drawing Group A.For the purpose of clarification, piston rod end will be designated as the working end. If the item is a twin cylinder and piston rod ends are identical, use I/SAC 2DA, ALL WORKING ENDS. (e.g., CKSF2DAL2\*; CKSF2DBL2\$\$2DCL3\*)

REPLY CODE REPLY (0231)

2DA ALL WORKING ENDS
2DC LARGEST WORKING END
2DB SMALLEST WORKING END

NOTE FOR MRC CKSG: IF STYLE 7 OR 8 IS ENTERED FOR MRC CKSF, REPLY TO MRC CKSG.

 $A, G^*, H^*, J^*, K, L^*$  (See Note Above)

CKSG D FIRST PISTON ROD END THREAD SERIES DESIGNATOR

Definition: A DESIGNATION DISTINGUISHING ONE GROUP OF SCREW THREAD DIAMETER-PITCH COMBINATIONS FROM ANOTHER BY THE NUMBER OF THREADS PER MEASUREMENT SCALE FOR A SPECIFIC DIAMETER ON THE FIRST PISTON ROD END.

Reply Instructions: Enter the applicable I/SAC from the table below, followed by the Mode Code, followed by the applicable Reply Code from <u>Appendix A</u>, Table 2. (e.g., CKSG2DADAN\*; CKSG2DADNC\$DNF\*; CKSG2DBDNC\*; CKSG2DCDNF\*)

REPLY CODE	<u>REPLY (0231)</u>
2DA	ALL WORKING ENDS
2DC	LARGEST WORKING END
2DB	SMALLEST WORKING END

NOTE FOR MRCS CKSH, CKSJ, CTXC, CKSK, CKSL, AND CKSM: IF REPLY CODE UN, NC, NE, NF, NJ, JC, JF, JE, OR NS IS ENTERED FOR MRC CKSG, REPLY TO MRCS CKSH, CKSJ, CKSK, AND CKSL. IF REPLY CODE BF OR BW IS ENTERED FOR MRC CKSG, REPLY TO MRCS CKSH AND CKSL. IF REPLY CODE SS, SM, SJ, OR SK IS ENTERED FOR MRC CKSG, REPLY TO MRCS CKSH, CTXC AND CKSL. IF REPLY CODE AN, BS, BR, FP, NH, SP, PS, SF, SC, SH, SL, PM, NP, NT, PT, PE, PF, OR PP IS ENTERED FOR MRC CKSG, REPLY TO MRCS CKSL AND CKSM.

A, G\*, H\*, J\*, K, L\* (See Note Above)

CKSH J FIRST PISTON ROD END THREAD DIAMETER

Definition: THE LENGTH OF A STRAIGHT LINE WHICH PASSES THROUGH THE CENTER OF THE FIRST PISTON ROD END WHICH WOULD BOUND THE CREST OF AN EXTERNAL THREAD OR THE ROOT OF AN INTERNAL THREAD.

Reply Instructions: Enter the applicable I/SAC from Table 1, followed by the Mode Code, followed by the applicable Reply Codes from Tables 2 and 3 below, followed by the numeric value. (e.g., CKSH2DAJAA0.250\*; CKSH2DAJLA6.4\*; CKSH2DAJAB0.688\$\$JAC0.812\*; CKSH2DBJAB0.688\$\$JAC0.812\*; CKSH2DCJAB0.688\$\$JAC0.750\*)

Table 1

REPLY CODE REPLY (0231)

2DA ALL WORKING ENDS
2DC LARGEST WORKING END
2DB SMALLEST WORKING END

Table 2

REPLY CODE
A INCHES

L MILLIMETERS

Table 2

REPLY CODE
A NOMINAL
B MINIMUM
C MAXIMUM

 $A, G^*, H^*, J^*, K, L^*$  (See Note Preceding MRC CKSH)

CKSJ A FIRST PISTON ROD END THREAD QUANTITY PER INCH

Definition: THE NUMBER OF SCREW THREADS ON THE FIRST PISTON ROD END PER LINEAR INCH MEASURED ON A LINE PARALLEL TO THE THREAD AXIS.

Reply Instructions: Enter the applicable I/SAC from the table below, followed by the Mode Code, followed by the quantity. (e.g., CKSJ2DAA20\*; CKSJ2DBA12\*; CKSJ2DCA16\*)

REPLY CODE REPLY (0231)

2DA ALL WORKING ENDS
2DC LARGEST WORKING END
2DB SMALLEST WORKING END

 $A, G^*, H^*, J^*, K, L^*$  (See Note Preceding MRC CKSH)

CTXC B FIRST PISTON ROD END THREAD PITCH IN MILLIMETERS

Definition: THE DISTANCE BETWEEN CORRESPONDING POINTS ON TWO ADJACENT THREADS MEASURED PARALLEL TO THE THREADED AXIS OF THE FIRST PISTON ROD END. EXPRESSED IN MILLIMETERS

Reply Instructions: Enter the applicable I/SAC from the table below, followed by the Mode Code, followed by the numeric value. (e.g., CTXC2DAB1.25\*; CTXC2DBB1.25\*; CTXC2DCB1.50\*)

REPLY CODE	<u>REPLY (0231)</u>
2DA	ALL WORKING ENDS
2DC	LARGEST WORKING END
2DB	SMALLEST WORKING END

 $A, G^*, H^*, J^*, K, L^*$  (See Note Preceding MRC CKSH)

CKSK A FIRST PISTON ROD END THREAD CLASS

Definition: A NUMERIC-ALPHA DESIGNATOR INDICATING THE PITCH DIAMETER TOLERANCE AND AN EXTERNAL OR INTERNAL THREAD OF THE FIRST PISTON ROD END.

Reply Instructions: Enter the applicable I/SAC from the table below, followed by the Mode Code, followed by the thread class. (e.g., CKSK2DAA20\*; CKSK2DBA12\*; CKSK2DCA16\*)

<u>REPLY (0231)</u>
ALL WORKING ENDS
LARGEST WORKING END
SMALLEST WORKING END

 $A^*$ ,  $G^*$ ,  $H^*$ ,  $J^*$ ,  $K^*$ ,  $L^*$  (See Note Preceding MRC CKSH)

CKSL D FIRST PISTON ROD END THREAD DIRECTION

Definition: THE DIRECTION OF THE FIRST PISTON ROD END THREAD WHEN VIEWED AXIALLY. A RIGHT-HAND THREAD WINDS IN A CLOCKWISE DIRECTION WHILE A LEFT-HAND THREAD WINDS IN A COUNTERCLOCKWISE DIRECTION

Reply Instructions: Enter the applicable I/SAC from Table 1, followed by the Mode Code, followed by the Reply Code from the Table 2, below. (e.g., CKSL2DADAAG\*; CKSL2DBDAAG\*; CKSL2DCDAAL\*)

Table 1REPLY CODEREPLY (0231)2DAALL WORKING ENDS2DCLARGEST WORKING END2DBSMALLEST WORKING END

Table 2REPLY CODEREPLY (AA38)AAGLEFT-HANDALLRIGHT-HAND

 $A, G^*, H^*, J^*, K, L^*$  (See Note Preceding MRC CKSH)

CKSM J FIRST PISTON ROD END NOMINAL PIPE THREAD SIZE

Definition: THE INDUSTRIAL SIZE DESIGNATION USED TO INDICATE THE DIAMETER OF THE FIRST PISTON ROD END PIPE THREAD.

Reply Instructions: Enter the applicable I/SAC from Table 1 below, followed by the Mode Code, followed by the applicable Reply Code from Table 2 below, followed by the decimal equivalent of the nominal size of pipe thread. (e.g., CKSM2DAJA0.750\*; CKSM2DAJL19.0\*; CKSM2DBJA0.750\*; CKSM2DCJA0.812\*)

Table 1REPLY CODEREPLY (0231)2DAALL WORKING ENDS2DCLARGEST WORKING END2DBSMALLEST WORKING END

Table 2REPLY CODEREPLY (AC20)AINCHESLMILLIMETERS

A\*, G\*, H\*, J\*, K\*, L\*

#### CLLP D PISTON ROD END SIMILARITY

Definition: AN INDICATION OF THE SIMILARITY OF THE PISTION ROD ENDS.

Reply Instructions: Enter the applicable Reply Code from the table below. (e.g., CLLPDC\*)

REPLY CODE REPLY (AA37)

C IDENTICAL B NOT IDENTICAL

NOTE FOR MRC CLLQ: IF REPLY CODE B IS ENTERED FOR MRC CLLP, REPLY TO MRC CLLQ.

A\*, G\*, H\*, J\*, K\*, L\* (See Note Above)

## CLLQ L SECOND PISTON ROD END STYLE

Definition: THE STYLE DESIGNATION INDICATING THE CONFIGURATION THAT MOST NEARLY CORRESPONDS TO THE APPEARANCE OF THE SECOND PISTON ROD END.

Reply Instructions: Enter the applicable style number from <u>Appendix B</u>, Reference Drawing Group A. (e.g., CLLQL5\*)

NOTE FOR MRC CLLR: IF STYLE 7 OR 8 IS ENTERED FOR MRC CLLQ, REPLY TO MRC CLLR.

A\*, G\*, H\*, J\*, K\*, L\* (See Note Above)

#### CLLR D SECOND PISTON ROD END THREAD SERIES DESIGNATOR

Definition: A DESIGNATION DISTINGUISHING ONE GROUP OF SCREW THREAD DIAMETER-PITCH COMBINATIONS FROM ANOTHER BY THE NUMBER OF THREADS PER MEASUREMENT SCALE FOR A SPECIFIC DIAMETER ON THE SECOND PISTON ROD END.

Reply Instructions: Enter the applicable Reply Code from <u>Appendix A</u>, Table 2. (e.g., CLLRDBF\*)

NOTE FOR MRCS CLLS, CLLT, CTXD, CLLW, CLLX, AND CLLY: IF REPLY CODE UN, NC, NE, NF, NJ, JC, JF, JE, OR NS IS ENTERED FOR MRC CLLR, REPLY TO MRCS CLLS, CLLT, CLLW, AND CLLX. IF REPLY CODE BF OR BW IS ENTERED FOR MRC CLLR, REPLY TO MRCS CLLS AND CLLX. IF REPLY CODE SS, SM, SJ OR SK IS ENTERED FOR MRC CLLR, REPLY TO MRCS CLLS, CTXD AND CLLX. IF REPLY CODE AN, BS, BR, FP, NH, SP, PS, SF, SC, SH, SL, PM, NP, NT, PT, PE, PF OR PP IS ENTERED FOR MRC CLLR, REPLY TO MRCS CLLX AND CLLY.

A\*, G\*, H\*, J\*, K\*, L\* (See Note Above)

## CLLS J SECOND PISTON ROD END THREAD DIAMETER

Definition: THE LENGTH OF A STRAIGHT LINE WHICH PASSES THROUGH THE CENTER OF THE SECOND PISTON ROD END AND WOULD BOUND THE CREST OF AN EXTERNAL THREAD OR THE ROOT OF AN INTERNAL THREAD.

Reply Instructions: Enter the applicable Reply Code from Tables 1 and 2 below, followed by the numeric value. (e.g., CLLSJAA0.250\*; CLLSJAB0.250\$\$JAC0.263\*)

Table 1

REPLY CODE A REPLY (AA05) INCHES

L MILLIMETERS

Table 2

REPLY CODE
A NOMINAL
B MINIMUM
C MAXIMUM

A\*, G\*, H\*, J\*, K\*, L\* (See Note Preceding MRC CLLS)

CLLT A SECOND PISTON ROD END THREAD QUANTITY PER INCH

Definition: THE NUMBER OF SCREW THREADS ON THE SECOND PISTON ROD END PER LINEAR INCH MEASURED ON A LINE PARALLEL TO THE THREAD AXIS.

Reply Instructions: Enter the quantity. (e.g., CLLTA20\*)

A\*, G\*, H\*, J\*, K\*, L\* (See Note Preceding MRC CLLS)

CTXD B SECOND PISTON ROD END THREAD PITCH IN MILLIMETERS

Definition: THE DISTANCE BETWEEN CORRESPONDING POINTS ON TWO ADJACENT THREADS MEASURED PARALLEL TO THE THREADED AXIS OF THE SECOND PISTON ROD END, EXPRESSED IN MILLIMETERS.

Reply Instructions: Enter the numeric value. (e.g., CTXDB1.25\*)

A\*, G\*, H\*, J\*, K\*, L\* (See Note Preceding MRC CLLS)

CLLW A SECOND PISTON ROD END THREAD CLASS

Definition: A NUMERIC-ALPHA DESIGNATOR INDICATING THE PITCH DIAMETER TOLERANCE AND AN EXTERNAL OR INTERNAL THREAD ON THE SECOND PISTON ROD END.

Reply Instructions: Enter the thread class. (e.g., CLLWA1A\*)

A\*, G\*, H\*, J\*, K\*, L\* (See Note Preceding MRC CLLS)

CLLX D SECOND PISTON ROD END THREAD DIRECTION

Definition: THE DIRECTION OF THE SECOND PISTON ROD END THREAD WHEN VIEWED AXIALLY. A RIGHT-HAND THREAD WINDS IN A CLOCKWISE DIRECTION WHILE A LEFT-HAND THREAD WINDS IN A COUNTERCLOCKWISE DIRECTION.

Reply Instructions: Enter the applicable Reply Code from the table below. (e.g., CLLXDAAG\*)

REPLY CODE REPLY (AA38)
AAG LEFT-HAND
AAL RIGHT-HAND

A\*, G\*, H\*, J\*, K\*, L\* (See Note Preceding MRC CLLS)

CLLY J SECOND PISTON ROD END NOMINAL PIPE THREAD SIZE

Definition: THE INDUSTRIAL SIZE DESIGNATION USED TO INDICATE THE DIAMETER OF THE SECOND PISTON ROD END PIPE THREAD.

Reply Instructions: Enter the applicable Reply Code from the table below, followed by the decimal equivalent of the nominal size of pipe thread. (e.g., CLLYJA0.750\*; CLLYJL19.0\*)

REPLY CODE
A INCHES
L MILLIMETERS

ALL\*

#### CLML H MOUNTING TYPE AND LOCATION

Definition: INDICATES THE TYPE OF MOUNTING AND THE LOCATION ON THE ITEM.

Reply Instructions: Enter the applicable Reply Code from Tables 1 and 2 below. (e.g., CLMLHACRDAA\*; CLMLHBNADAB\$HACRDAB\*)

For items with multiple mounting types and/or multiple locations, use AND/OR coding. (e.g., CLMLHABNDAA\$\$HAHTDAA\$\$HADNDAB\*; CLMLHABNDAA\$\$HAHTDAA\$HADNDAB\*)

Mode Code K is not authorized for this requirement.

Table 1	
REPLY CODE	REPLY (AM39)
BFA	BALL SOCKET
BNA	BALL STUD
BNB	BEARING
BXR	BORE
ADN	BOSS
ACR	FLANGE
BPL	FLAT
BKK	FORK (clevis)
ABN	LUG (base)
AHT	RING
ABT	ROD
ABW	SCREW
AAE	STUD
BKL	TONGUE
AKG	TRUNNION

Table 2	
<b>REPLY</b>	REPLY (AJ91)
<u>CODE</u>	
AHH	BOTH ENDS
DAC	CENTER SECTION (includes other than extreme end
	mountings
EAT	CYLINDER BASE
DAA	CYLINDER HEAD END
DAB	PISTON ROD END

## ALL\*

## ABDR D MOUNTING PROVISION

Definition: THE PROVISION(S) FOR MOUNTING THE ITEM.

Reply Instructions: Enter the applicable Reply Code from the table below. (e.g., ABDRDEE\*; ABDRDEE\$\$DAT\*)

REPLY CODE	REPLY (AB21)
HN	LINK
GA	LUGS
EE	PIN (used for trunnion mount)
EF	SLOT
AL	THREADED MOUNTING HOLES
HP	THREADED MOUNTING SCREWS
AQ	THREADED MOUNTING STUDS
AT	UNTHREADED MOUNTING HOLES

IF REPLY CODE EF IS ENTERED FOR MRC ABDR, REPLY TO MRCS BBBW, ABGC, AND ABGD. IF REPLY CODE AL IS ENTERED FOR MRC ABDR, REPLY TO MRCS BBBW AND CDTD. IF REPLY CODE AQ OR HP, IS ENTERED FOR MRC ABDR, REPLY TO MRCS BBBW, CDTD, AND ABKP. IF REPLY CODE AT IS ENTERED FOR MRC ABDR, REPLY TO MRCS BBBW AND CLMQ.NOTE FOR MRCS BBBW, CDTD, CLMQ, ABKP, ABGC, AND ABGD: IF REPLY CODE EE IS ENTERED FOR MRC ABDR, REPLY TO MRCS CLMQ AND ABKP. IF REPLY CODE EF IS ENTERED FOR MRC ABDR, REPLY TO MRCS BBBW, ABGC, AND ABGD.IF REPLY CODE AL IS ENTERED FOR MRC ABDR, REPLY TO MRCS BBBW AND CDTD. IF REPLY CODE AQ OR HP, IS ENTERED FOR MRC ABDR, REPLY TO MRCS BBBW, CDTD, AND ABKP. IF REPLY CODE AT IS ENTERED FOR MRC ABDR, REPLY TO MRCS BBBW AND CLMQ.

ALL\* (See Note Above)

#### BBBW L MOUNTING PROVISION ARRANGEMENT STYLE

Definition: THE STYLE DESIGNATION INDICATING THE CONFIGURATION THAT MOST NEARLY CORRESPONDS TO THE ARRANGEMENT OF THE MOUNTING PROVISION(S).

Reply Instructions: Enter the applicable style number from <u>Appendix B</u>, Reference Drawing Group B. (e.g., BBBWL1\*)

ALL\* (See Note Preceding MRC BBBW)

## CDTD D MOUNTING FACILITY THREAD SERIES DESIGNATOR

Definition: A DESIGNATION DISTINGUISHING ONE GROUP OF THREAD DIAMETER-PITCH COMBINATIONS FROM ANOTHER BY THE NUMBER OF THREADS PER MEASUREMENT SCALE APPLIED TO A MOUNTING FACILITY DIAMETER.

Reply Instructions: Enter the applicable Reply Code from <u>Appendix A</u>, Table 2. (e.g., CDTDDNC\*; CDTDDNC\$\$DNF\*)

NOTE FOR MRCS CDTF, CDTG, CTXF, AKBM, AKBN, CLMN, AND CLMP: IF REPLY CODE UN, NC, NE, NF, NJ, JC JF, JE, OR NS IS ENTERED FOR MRC CDTD, REPLY TO MRCS CDTF, CDTG, AKBM, AKBN, AND CLMN. IF REPLY CODE BF OR BW IS ENTERED FOR MRC CDTD, REPLY TO MRCS CDTF, AKBN AND CLMN. IF REPLY CODE SS, SM, SJ, OR SK IS ENTERED FOR MRC CDTD, REPLY TO MRCS CDTF, CTXF, AKBN, AND CLMN. IF REPLY CODE AN, BS, BR, FP, NH, SP, PS, SF, SC, SH, SL, PM, NP, NT, PT, PE, PF, OR PP IS ENTERED FOR MRC CDTD, REPLY TO MRCS AKBN AND CLMP. USE AND CODING (\$\$) TO ENTER TOLERANCE VALUES, AS INDICATED.

ALL\* (See Note Above)

#### CDTF J MOUNTING FACILITY THREAD DIAMETER

Definition: THE LENGTH OF A STRAIGHT LINE WHICH PASSES THROUGH THE CENTER OF THE MOUNTING FACILITY WHICH WOULD BOUND THE CREST OF AN EXTERNAL THREAD OR THE ROOT OF AN INTERNAL THREAD.

Reply Instructions: Enter the applicable Reply Code from Tables 1 and 2 below, followed by the numeric value. (e.g., CDTFJAA0.750\*; CDTFJLA8.5\*; CDTFJAB0.313\$\$JAC0.438\*)

Table 1

REPLY CODE
A INCHES
L MILLIMETERS

Table 2

REPLY CODE
A NOMINAL
B MINIMUM
C MAXIMUM

ALL\* (See Note Preceding MRC CDTF)

CDTG A MOUNTING FACILITY THREAD QUANTITY PER INCH

Definition: THE NUMBER OF THREADS ON THE MOUNTING FACILITY PER LINEAR INCH MEASURED ON A LINE PARALLEL TO THE THREAD AXIS.

Reply Instructions: Enter the quantity.

(e.g., CDTGA10\*;

CDTGA11-1/2\*)

ALL\* (See Note Preceding MRC CDTF)

CTXF B MOUNTING FACILITY THREAD PITCH IN MILLIMETERS

Definition: THE DISTANCE BETWEEN CORRESPONDING POINTS ON TWO ADJACENT THREADS MEASURED PARALLEL TO THE THREADED AXIS OF THE MOUNTING FACILITY, EXPRESSED IN MILLIMETERS.

*Reply Instructions: Enter the numeric value.* (e.g., CTXFB1.25\*)

ALL\* (See Note Preceding MRC CDTF)

AKBM A MOUNTING FACILITY THREAD CLASS

Definition: A NUMERIC-ALPHA DESIGNATOR INDICATING THE PITCH DIAMETER TOLERANCE, AND AN EXTERNAL OR INTERNAL THREADED MOUNTING FACILITY.

*Reply Instructions: Enter the thread class. (e.g., AKBMA1A\*)* 

ALL\* (See Note Preceding MRC CDTF)

AKBN D MOUNTING FACILITY THREAD DIRECTION

Definition: THE DIRECTION OF THE THREADS OF A MOUNTING FACILITY WHEN VIEWED AXIALLY. A RIGHT-HAND THREAD WINDS IN A CLOCKWISE DIRECTION WHILE A LEFT-HAND THREAD WINDS IN A COUNTERCLOCKWISE DIRECTION.

Reply Instructions: Enter the applicable Reply Code from the table below. (e.g., AKBNDAAG\*)

REPLY CODE AAG LEFT-HAND AAL RIGHT-HAND

ALL\* (See Note Preceding MRC CDTF)

CLMN J MOUNTING FACILITY THREAD LENGTH

Definition: THE LENGTH OF THE THREADED PORTION OF THE MOUNTING FACILITY.

Reply Instructions: Enter the applicable Reply Code from Tables 1 and 2 below, followed by the numeric value. (e.g., CLMNJAA1.250\*; CLMNJLA31.8\*; CLMNJAB0.460\$\$JAC0.540\*)

Table 1

REPLY CODE A REPLY (AA05) INCHES

L MILLIMETERS

Table 2

REPLY CODE
A NOMINAL
B MINIMUM
C MAXIMUM

ALL\* (See Note Preceding MRC CDTF)

CLMP J MOUNTING FACILITY NOMINAL PIPE THREAD SIZE

Definition: THE INDUSTRIAL SIZE DESIGNATION USED TO INDICATE THE DIAMETER OF THE MOUNTING FACILITY PIPE THREAD.

Reply Instructions: Enter the applicable Reply Code from the table below, followed by the decimal equivalent of the nominal size of pipe thread. (e.g., CLMPJA0.750\*; CLMPJL19.0\*)

REPLY CODE A INCHES
L MILLIMETERS

ALL\* (See Note Preceding MRC BBBW)

CLMQ J MOUNTING FACILITY DIAMETER

Definition: THE LENGTH OF A STRAIGHT LINE WHICH PASSES THROUGH THE CENTER OF THE MOUNTING FACILITY, AND TERMINATES AT THE CIRCUMFERENCE.

Reply Instructions: Enter the applicable Reply Code from Tables 1 and 2 below, followed by the numeric value. (e.g., CLMQJAA0.500\*; CLMQJAB0.500\$\$JAC0.550\*; CLMQJLA12.7\*)

Table 1

REPLY CODE
A INCHES
L MILLIMETERS

Table 2

REPLY CODE
A NOMINAL
B MINIMUM
C MAXIMUM

ALL\* (See Note Preceding MRC BBBW)

ABKP J MOUNTING FACILITY LENGTH

Definition: A MEASUREMENT OF THE LONGEST DIMENSION OF A MOUNTING FACILITY, IN DISTINCTION FROM WIDTH.

Reply Instructions: Enter the applicable Reply Code from Tables 1 and 2 below, followed by the numeric value. (e.g., ABKPJAA0.750\*; ABKPJLA19.0\*; ABKPJAB0.750\$\$JAC0.760\*)

Table 1

REPLY CODE
A INCHES
L MILLIMETERS

Table 2

REPLY CODE
A NOMINAL
B MINIMUM
C MAXIMUM

#### ALL\* (See Note Preceding MRC BBBW)

ABGC J SLOT WIDTH

Definition: THE DISTANCE, MEASURED ALONG A STRAIGHT LINE PERPENDICULAR TO THE LONGITUDINAL AXIS OF THE SLOT, FROM ONE EDGE TO THE OTHER.

Reply Instructions: Enter the applicable Reply Code from Tables 1 and 2 below, followed by the numeric value. (e.g., ABGCJAA0.750\*; ABGCJLA19.0\*; ABGCJAB0.750\$\$JAC0.760\*)

Table 1

REPLY CODE A REPLY (AA05) INCHES

L MILLIMETERS

Table 2

REPLY CODE
A NOMINAL
B MINIMUM
C MAXIMUM

ALL\* (See Note Preceding MRC BBBW)

ABGD J SLOT LENGTH

Definition: A MEASUREMENT OF THE LONGEST DIMENSION OF THE SLOT, IN DISTINCTION FROM WIDTH.

Reply Instructions: Enter the applicable Reply Code from Tables 1 and 2 below, followed by the numeric value. (e.g., ABGDJAA0.950\*; ABGDJLA24.1\*; ABGDJAB0.950\$\$JAC0.960\*)

Table 1

REPLY CODE A REPLY (AA05)

A INCHES

L MILLIMETERS

Table 2

REPLY CODE	REPLY (AC20)
A	NOMINAL
В	MINIMUM
C	MAXIMUM

ALL\*

#### CLMS J PORT LOCATION AND QUANTITY

Definition: INDICATES THE LOCATION AND NUMBER OF PORTS ON THE ITEM.

Reply Instructions: Enter the applicable Reply Code from the table below, followed by the quantity. (e.g., CLMSJDAC2\*; CLMSJDAC2\$\$JDAB1\*)

REPLY CODE	REPLY (AJ91)
DAC	CENTER SECTION
EAT	CYLINDER BASE
DAA	CYLINDER HEAD END
DAB	PISTON ROD END

NOTE FOR MRC CLMT: REPLY TO THIS MRC, IF A REPLY IS ENTERED FOR MRC CLMS.

*ALL\** (See Note Above)

CLMT L PORT STYLE

Definition: THE STYLE DESIGNATION INDICATING THE CONFIGURATION THAT MOST NEARLY CORRESPONDS TO THE APPEARANCE OF THE PORT.

Reply Instructions: Enter the applicable I/SAC from the table below, followed by the Mode Code, followed by the applicable style number from <u>Appendix B</u>, Reference Drawing Group C. (e.g., CLMT1AL12\*; CLMT1AL12\$\$L36\*)

<u>REPLY CODE</u>	<u>REPLY (0027)</u>
1B	ALL PORTS
1A	SINGLE PORT
1C	1ST PORT
1D	2ND PORT
1E	3RD PORT
1F	4TH PORT

NOTE FOR MRCS CLMW, AJFY, AJFZ, AARX, AND ABHE: IF STYLE NUMBER 1, 2, 3, 4, 6, 7, 9, 12, 14, 15, 18, 20, OR 24 IS ENTERED FOR MRC CLMT, REPLY TO MRCS CLMW AND AJFY. IF STYLE NUMBER 5, 13, 19, 21, 22, 23, OR 28 IS ENTERED FOR MRC CLMT, REPLY TO MRC CLMW. IF STYLE NUMBER 8, 10, 11, 16, 17, 25, 26, OR 27 IS ENTERED FOR MRC CLMT, REPLY TO MRCS CLMW AND AJFZ. IF STYLE NUMBER 29 THROUGH 43 IS ENTERED FOR MRC CLMT, REPLY TO MRC AARX. IF STYLE NUMBER 44 THROUGH 53 IS ENTERED FOR MRC CLMT, REPLY TO MRC ABHE. USE I/SAC TO ENTER A REPLY FOR EACH PORT, IN THE SAME SEQUENCE AS MRC CLMT. USE AND CODING (\$\$) TO ENTER TOLERANCE VALUES, AS INDICIATED.

ALL\* (See Note Above)

CLMW D PORT THREAD SERIES DESIGNATOR

Definition: A DESIGNATION DISTINGUISHING ONE GROUP OF SCREW THREAD DIAMETER-PITCH COMBINATIONS FROM ANOTHER BY THE NUMBER OF THREADS PER MEASUREMENT SCALE FOR A SPECIFIC DIAMETER ON THE PORT.

Reply Instructions: Enter the applicable I/SAC from the table below, followed by the Mode Code, followed by the applicable Reply Code from <u>Appendix A</u>, Table 2. (e.g., CLMW1BDNC\*; CLMW1CDJF\$\$DNT\*)

<u>REPLY CODE</u>	<u>REPLY (0027)</u>
1B	ALL PORTS
<i>1A</i>	SINGLE PORT
1C	1ST PORT
1D	2ND PORT
<i>1E</i>	3RD PORT
1F	4TH PORT

NOTE FOR MRCS CLMX, CLMY, CTXG, CLMZ, AND CLNB: IF REPLY CODE UN, NC, NE, NF, NJ, JC, JF, JE, OR NS IS ENTERED FOR MRC CLMW, REPLY TO MRCS CLMX, CLMY, AND CLNB. IF REPLY CODE BF OR BW IS ENTERED FOR MRC CLMW, REPLY TO MRC CLMX. IF REPLY CODE SS, SM, SJ, OR SK IS ENTERED FOR MRC CLMW, REPLY TO MRC CLMX AND CTXG. IF REPLY CODE AN, BS, BR, FP, PT, NH, PM, PF, PE, PP, SP, PS, SF, SC, SH, SL, NP, OR NT IS ENTERED FOR MRC CLMW, REPLY TO MRC CLMZ. USE I/SAC TO ENTER A REPLY FOR EACH PORT IN THE SAME SEQUENCE AS MRC CLMT. USE AND CODING (\$\$) TO ENTER TOLERANCE VALUES, AS INDICATED.

### ALL\* (See Note Above)

#### CLMX J PORT THREAD DIAMETER

Definition: THE LENGTH OF A STRAIGHT LINE WHICH PASSES THROUGH THE CENTER OF THE PORT AND WOULD BOUND THE CREST OF AN EXTERNAL THREAD OR THE ROOT OF AN INTERNAL THREAD.

Reply Instructions: Enter the I/SAC from Table 1 below, followed by the Mode Code, followed by the applicable Reply Code from Tables 1 and 2 below, followed by the numeric value. (e.g., CLMX1AJAA0.750\*; CLMX1AJLA0.6\*; CLMX1BJAB0.375\$\$JAC0.500\*; CLMX1CJAB0.375\$\$JAC0.500\*; CLMX1DJAB0.500\$\$JAC0.750\*)

Table 1	
REPLY CODE	REPLY (0027)
1B	ALL PORTS
<i>1A</i>	SINGLE PORT
<i>1C</i>	1ST PORT
<i>1D</i>	2ND PORT
<i>1E</i>	3RD PORT
1F	4TH PORT

Table 2 REPLY CODE	REPLY (AA05)
$\boldsymbol{A}$	<i>INCHES</i>
L	<b>MILLIMETERS</b>

Table 3REPLY CODEREPLY (AA05)ANOMINALBMINIMUMCMAXIMUM

*ALL\** (See Note Preceding MRC CLMX)

#### CLMY A PORT THREAD QUANTITY PER INCH

Definition: A MEASUREMENT OF THE NUMBER OF SCREW THREADS ON THE PORT PER LINEAR INCH, INCLUDING INCOMPLETE THREADS, ON A LINE PARALLEL TO THE THREAD AXIS.

Reply Instructions: Enter the applicable I/SAC from the table below, followed by the Mode Code, followed by the quantity. (e.g., CLMY1BA11-1/2\*; CLMY1CA16\*; CLMY1DA18\*)

<u>REPLY CODE</u>	<u>REPLY (0027)</u>
<i>1B</i>	ALL PORTS
<i>1A</i>	SINGLE PORT
1C	1ST PORT
<i>1D</i>	2ND PORT
<i>1E</i>	3RD PORT
1F	4TH PORT

ALL\* (See Note Preceding MRC CLMX)

CTXG B PORT THREAD PITCH IN MILLIMETERS

Definition: THE DISTANCE BETWEEN CORRESPONDING POINTS ON TWO ADJACENT THREADS MEASURED PARALLEL TO THE THREADED AXIS OF THE PORT THREAD, EXPRESSED IN MILLIMETERS.

Reply Instructions: Enter the applicable I/SAC from the table below, followed by the Mode Code, followed by the numeric value. (e.g., CTXG1AB1.25\*; CTXG1CB1.25\*; CLM1DB1.50\*)

DEDLY CODE	DEDLY (0027)
<u>REPLY CODE</u>	<u>REPLY (0027)</u>
1B	ALL PORTS
<i>1A</i>	SINGLE PORT
1C	1ST PORT
<i>1D</i>	2ND PORT
1E	3RD PORT
1F	4TH PORT

*ALL\** (See Note Preceding MRC CLMX)

CLMZ J PORT NOMINAL PIPE THREAD SIZE

Definition: THE INDUSTRIAL SIZE DESIGNATION USED TO INDICATE THE DIAMETER OF THE PORT PIPE THREAD.

Reply Instructions: Enter the applicable I/SAC from Table 1 below, followed by the Mode Code, followed by the Reply Code from the Ttable 2 below, followed by the decimal equivalent of the nominal size of pipe thread. (e.g., CLMZ1AJA0.750\*, CLMZ1BJL1.6\*; CLMZ1CJA0.250\*; CLMZ1DJA0.375\*)

<u>Table 1</u>	
<u>REPLY CODE</u>	<u>REPLY (0027)</u>
1B	ALL PORTS
<i>1A</i>	SINGLE PORT

1C	1ST PORT
1D	2ND PORT
1E	3RD PORT
<i>1F</i>	4TH PORT

Table 2 REPLY CODE A L

REPLY (AA05) INCHES MILLIMETERS

ALL\* (See Note Preceding MRC CLMX)

CLNB A PORT THREAD

Definition: A NUMERIC-ALPHA DESIGNATOR INDICATING THE PITCH DIAMETER TOLERANCE AND AN EXTERNAL OR INTERNAL PORT THREAD.

Reply Instructions: Enter the applicable I/SAC from the table below, followed by the Mode Code, followed by the thread class. (e.g., CLNB1AA1A\*; CLNB1CA2B\*; CLNB 1DA3A\*)

<u>REPLY CODE</u>	<u>REPLY (0027)</u>
1B	ALL PORTS
<i>1A</i>	SINGLE PORT
1C	1ST PORT
<i>1D</i>	2ND PORT
1E	3RD PORT
1F	4TH PORT

*ALL\** (See Note Preceding MRC CLMW)

AJFY B SEAT ANGLE IN DEG

DEDITE GODE

Definition: THE ANGLE OF THE END SURFACE UPON WHICH THE MATED SURFACE SEATS, EXPRESSED IN DEGREES.

Reply Instructions: Enter the applicable I/SAC from the table below, followed by the Mode Code, followed by the numeric value.(e.g., AJFY1AB37.5\*; AJFY1CB35.0\*; AJFY1DB45.0\*)

<u>REPLY CODE</u>	<u>REPLY (0027)</u>
<i>1B</i>	ALL PORTS
1A	SINGLE PORT

1C	1ST PORT
1D	2ND PORT
1E	3RD PORT
1F	4TH PORT

#### ALL\* (See Note Preceding MRC CLMW)

#### AJFZ J SEAT RADIUS

Definition: THE RADIUS OF THE END SURFACE UPON WHICH THE MATED SURFACE SEATS.

Reply Instructions: Enter the applicable I/SAC from Table 1 below, followed by the Mode Code, followed by the applicable Reply Codes from Tables 1 and 2 below, followed by the numeric value. (e.g., AJFZ1AJAA0.062\*; AJFZ1BJLA1.6\*; AJFZ1BJAB0.062\$\$JAC0.068\*; AJFZ1CJAB0.062\$\$JAC0.063\*; AJFZ1DJAB0.073\$\$JAC0.077\*)

Table 1	
REPLY CODE	REPLY (0027)
1B	ALL PORTS
1A	SINGLE PORT
1C	1ST PORT
1D	2ND PORT
1E	3RD PORT
1F	4TH PORT

Table 2	
REPLY CODE	REPLY (AA05)
A	INCHES
L	<b>MILLIMETERS</b>
Table 3	

1 4010 3	
REPLY CODE	REPLY (AA05)
A	NOMINAL
В	MINIMUM
C	MAXIMUM

#### ALL\* (See Note Preceding MRC CLMW)

#### AARX J INSIDE DIAMETER

Definition: THE LENGTH OF A STRAIGHT LINE WHICH PASSES THROUGH THE CENTER OF A CIRCULAR FIGURE OR BODY, AND TERMINATES AT THE INSIDE CIRCUMFERENCE.

Reply Instructions: Enter the applicable I/SAC from Table 1 below, followed by the Mode Code and the applicable Reply Codes from Tables 1 and 2 below, followed by the numeric value. (e.g., AARX1AJAA0.250\*; AARX1BJLA6.4\*; AARX1BJAB0.250\$\$JAC0.350\*; AARX1CJAB0.250\$\$JAC0.350\*; AARX1DJAB0.125\$\$JAC0.130\*)

<u>l able l</u>	
REPLY CODE	<u>REPLY (0027)</u>
1B	ALL PORTS
<i>1A</i>	SINGLE PORT
<i>1C</i>	1ST PORT
<i>1D</i>	2ND PORT
1E	3RD PORT
1F	4TH PORT
Table 2	
REPLY CODE	REPLY (AA05)
$\overline{A}$	INCHES
L	MILLIMETERS
Table 3	
REPLY CODE	REPLY (AA05)
A	NOMINAL
В	MINIMUM
C	MAXIMUM
	1,11 11 11 11 11 11 11

ALL\* (See Note Preceding MRC CLMW)

Table 1

ABHE J OUTSIDE DIAMETER

Definition: THE LENGTH OF A STRAIGHT LINE WHICH PASSES THROUGH THE CENTER OF AN ITEM, AND TERMINATES AT THE OUTSIDE CIRCUMFERENCE.

Reply Instructions: Enter the applicable I/SAC from Table 1 below, followed by the Mode Code and the applicable Reply Codes from Tables 1 and 2 below, followed by the numeric value. (e.g., ABHE1AJAA0.750\*; ABHE1BJLA19.0\*; ABHE1BJAB0.500\$\$JAC0.750\*; ABHE1CJAB0.750\$\$JAC0.800\*; ABHE1DJAB0.125\$\$JAC0.130\*)

<u>Table 1</u>	
REPLY CODE	REPLY (0027)
1B	ALL PORTS
<i>1A</i>	SINGLE PORT
1C	1ST PORT
1D	2ND PORT
1E	3RD PORT

1F 4TH PORT

Table 2

REPLY CODE
A INCHES
L MILLIMETERS

Table 3

REPLY CODE
A NOMINAL
B MINIMUM
C MAXIMUM

J\*

#### CLNC J ROD END MAXIMUM ADJUSTMENT

Definition: A MEASUREMENT OF THE MAXIMUM ROD END ADJUSTMENT.

Reply Instructions: Enter the applicable Reply Code from the table below, followed by the numeric value. (e.g., CLNCJA0.625\*; CLNCJL15.9\*; CLNCJA1.125\$\$JA1.150\*)

REPLY CODE A INCHES
L MILLIMETERS

ALL\*

#### ABJH J TEMP RATING

Definition: A VALUE WHICH EXPRESSES THE DEGREE OF HEAT OR COLD AS APPLIED TO THE OPERATION, OR LIMITATION OF OPERATION, OF AN ITEM.

Reply Instructions: Enter the applicable Reply Code from the table below, followed by the numeric values. If the source document indicates a value below zero degrees, precede the entered value with the letter M. Without the letter M, the value will be assumed to be above zero. For multiple maximum values use AND/OR Coding. (e.g., ABJHJCM50.0\*; ABJHJC300.0\*; ABJHJF0.0\$\$JF200.0\*; ABJHJFM15.0\$\$JF215.0\$; ABJHJFM15.0\$\$JF215.0\$JFM20.0\$\$JF200.0\*)

REPLY CODE REPLY (AB36)
C DEG CELSIUS
F DEG FAHRENHEIT

 $G^*, K^*, L^*$ 

BGST J PRESSURE RATING

Definition: THE PRESSURE AT WHICH AN ITEM IS DESIGNED TO OPERATE.

Reply Instructions: Enter the applicable Reply Code from Tables 1 and 2 below, followed by the numeric value. (e.g., BGSTJFBA30.0\*; BGSTJFBB30.0\$\$JFBC32.0\*; BGSTJEYA21093.0\*)

Table 1

REPLY CODE REPLY (AG67)

EY KILOGRAMS PER SQUARE CENTIMETER JR NEWTONS PER SQUARE CENTIMETER

FB POUNDS PER SQUARE INCH

Table 2

REPLY CODE
A NOMINAL
B MINIMUM
C MAXIMUM

D, E, J

BBJX D MOUNTING POSITION

Definition: THE INSTALLED POSITION FOR WHICH THE ITEM IS DESIGNED.

Reply Instructions: Enter the applicable Reply Code from the table below. (e.g.,

BBJXDABW\*; BBJXDABW\$\$DABX\*)

REPLY CODE REPLY (AM04)

ABW LEFT ABX RIGHT

 $F^*$ 

BFMF D COOLING METHOD

Definition: THE MEANS OF COOLING USED TO MAINTAIN THE REQUIRED OPERATING TEMPERATURE OF THE ITEM.

Reply Instructions: Enter the applicable Reply Code from the table below. (e.g., BFMFDAAH\*)

REPLY CODE REPLY (AN05)

AAB AIR TO AIR COOLED WATER COOLED

E\*, H\*, J\*

CLND A BLEEDING FEATURE QUANTITY

Definition: THE NUMBER OF BLEEDING FEATURES INCLUDED.

Reply Instructions: Enter the quantity. (e.g., CLNDA2\*)

D\*, H\*

BMWH D RESERVOIR TYPE

Definition: INDICATES THE TYPE OF RESERVOIR PROVIDED.

Reply Instructions: Enter the applicable Reply Code from the table below. (e.g.,

BMWHDAAB\*)

REPLY CODE AAB INTEGRAL REMOTE

D\*, H\*

CLNF D PEDAL SHAFT EXTENSION DIRECTION

Definition: AN INDICATION OF THE DIRECTION IN WHICH THE PEDAL SHAFT EXTENDS.

Reply Instructions: Enter the applicable Reply Code from the table below. (e.g., CLNFDABW\*)

Left and right is determined as viewed from the mounting end.

REPLY CODE REPLY (AM04)

ABW LEFT ABX RIGHT

NOTE FOR MRCS ABWV AND AGRC: IF A REPLY IS ENTERED FOR MRC CLNF, REPLY TO MRCS ABWV AND AGRC.

D\*, H\* (See Note Above)

#### ABWV J SHAFT DIAMETER

Definition: THE LENGTH OF A STRAIGHT LINE WHICH PASSES THROUGH THE CENTER OF A SHAFT, AND TERMINATES AT THE CIRCUMFERENCE.

Reply Instructions: Enter the applicable Reply Codes from Tables 1 and 2 below, followed by the numeric value. (e.g., ABWVJAA0.500\*; ABWVJLA12.7\*; ABWVJAB0.500\$\$JAC0.512\*)

Table 1

REPLY CODE A REPLY (AA05) INCHES

L MILLIMETERS

Table 2

REPLY CODE
A NOMINAL
B MINIMUM
C MAXIMUM

#### D\*, H\* (See Note Preceding MRC ABWV)

#### AGRC J EXTENSION LENGTH

Definition: A MEASUREMENT OF THE LONGEST DIMENSION OF AN EXTENSION, IN DISTINCTION FROM WIDTH.

Reply Instructions: Enter the applicable Reply Codes from Tables 1 and 2 below, followed by the numeric value. (e.g., AGRCJAA1.500\*; AGRCJLA38.1\*; AGRCJAB1.500\$\$JAC1.512\*)

Table 1

REPLY CODE
A INCHES
L MILLIMETERS

Table 2

REPLY CODE
A NOMINAL
B MINIMUM
C MAXIMUM

D, H

AFLW D ACTUATION METHOD

Definition: THE MEANS BY WHICH THE ITEM IS ACTUATED.

Reply Instructions: Enter the applicable Reply Code from the table below. (e.g., AFLWDAAGO\*)

REPLY CODE AAGR CAM AAGQ DIRECT

D\*, H\*

#### CLNG D STOPLIGHT SWITCH THREAD SERIES DESIGNATOR

Definition: A DESIGNATION DISTINGUISHING ONE GROUP OF STOPLIGHT SWITCH SCREW THREAD DIAMETER-PITCH COMBINATIONS FROM ANOTHER BY THE NUMBER OF THREADS PER MEASUREMENT SCALE FOR A SPECIFIC DIAMETER.

Reply Instructions: Enter the applicable Reply Code from <u>Appendix A</u>, Table 2. (e.g., CLNGDNC\*)

NOTE FOR MRCS CLNH, CLNK, CTXH, CLNL, AND CLNM: IF REPLY CODE UN, NC, NE, NF, NJ, JC, JF, JE, OR NS IS ENTERED FOR MRC CLNG, REPLY TO MRCS CLNH, CLNK, AND CLNL.

IF REPLY CODE BF OR BW IS ENTERED FOR MRC CLNG, REPLY TO MRCS CLNH AND CLNL.

IF REPLY CODE SS, SM, SJ, OR SK IS ENTERED FOR MRC CLNG, REPLY TO MRCS CLNH, CTXH AND CLNL.

IF REPLY CODE AN, BS, BR, FP, NH, SP, PS, SF, SC, SH, SL, PM, NP, NT, PT, PE, PF, OR PP IS ENTERED FOR MRC CLNG, REPLY TO MRC CLNM.

D\*, H\* (See Note Above)

#### CLNH J STOPLIGHT SWITCH THREAD DIAMETER

Definition: THE LENGTH OF A STRAIGHT LINE WHICH PASSES THROUGH THE CENTER OF STOPLIGHT SWITCH AND WOULD BOUND THE CREST OF AN EXTERNAL THREAD OR THE ROOT OF AN INTERNAL THREAD.

Reply Instructions: Enter the applicable Reply Codes from Tables 1 and 2 below, followed by the numeric value. (e.g., CLNHJAA0.750\*; CLNHJLA19.0\*; CLNHJAB0.500\$\$JAC0.512\*)

Table 1

REPLY CODE A REPLY (AA05) INCHES

L MILLIMETERS

Table 2

REPLY CODE
A NOMINAL
B MINIMUM
C MAXIMUM

D\*, H\* (See Note Preceding MRC CLNH)

#### CLNK A STOPLIGHT SWITCH THREAD QUANTITY PER INCH

Definition: A MEASUREMENT OF THE NUMBER OF SCREW THREADS ON THE STOPLIGHT SWITCH PER LINEAR INCH, INCLUDING INCOMPLETE THREADS, ON A LINE PARALLEL TO THE THREAD AXIS.

Reply Instructions: Enter the quantity. (e.g.,

(e.g., CLNKA10\*;

CLNKA11-1/2\*)

D\*, H\* (See Note Preceding MRC CLNH)

#### CTXH B STOPLIGHT SWITCH THREAD PITCH IN MILLIMETERS

Definition: THE DISTANCE BETWEEN CORRESPONDING POINTS ON TWO ADJACENT THREADS MEASURED PARALLEL TO THE THREADED AXIS OF THE STOPLIGHT SWITCH, EXPRESSED IN MILLIMETERS.

Reply Instructions: Enter the numeric value. (e.g., CTXHB1.25\*)

D\*, H\* (See Note Preceding MRC CLNH)

#### CLNL D STOPLIGHT SWITCH THREAD DIRECTION

Definition: THE DIRECTION OF THE STOPLIGHT SWITCH THREAD WHEN VIEWED AXIALLY. A RIGHT-HAND THREAD WINDS IN A CLOCKWISE DIRECTION WHILE A LEFT-HAND THREAD WINDS IN A COUNTERCLOCKWISE DIRECTION.

Reply Instructions: Enter the applicable Reply Code from the table below. (e.g.,  $CLNLDAAG^*$ )

REPLY CODE REPLY (AA38)
AAG LEFT-HAND
AAL RIGHT-HAND

D\*, H\* (See Note Preceding MRC CLNH)

CLNM J STOPLIGHT SWITCH NOMINAL PIPE THREAD SIZE

Definition: THE INDUSTRIAL SIZE DESIGNATION USED TO INDICATE THE DIAMETER OF THE STOPLIGHT SWITCH PIPE THREAD.

Reply Instructions: Enter the applicable Reply Code from the table below, followed by the decimal equivalent of the nominal size of pipe thread. (e.g., CLNMJA0.750\*; CLNMJL19.0\*)

REPLY CODE	REPLY (AA05)
A	INCHES
L	MILLIMETERS

NOTE FOR MRCS CBBL AND FEAT: E MODE REPLIES WILL NOT BE ACCEPTED IN REPLY TO MRC CBBL. IF A REPLY IS NOT REFLECTED ON THE TABLE FOR MRC CBBL, ENTER THE FEATURE IN REPLY TO MRC FEAT.

D\*, E\*, G\*, H\*, J\*, L\* (See Note Above)

CBBL D FEATURES PROVIDED

Definition: THOSE FEATURES, NOT OTHERWISE SPECIFIED, WHICH MAY BE REQUIRED FOR PROPER FUNCTIONING OF THE ITEM.

Reply Instructions: Enter the applicable Reply Code from <u>Appendix A</u>, Table 6. (e.g., CBBLDAABK\*; CBBLDAABM\$\$DAABN\*)

ALL \* (See Note Preceding MRC CBBL)

FEAT G SPECIAL FEATURES

Definition: THOSE UNUSUAL OR UNIQUE CHARACTERISTICS OR QUALITIES OF AN ITEM NOT COVERED IN THE OTHER REQUIREMENTS AND WHICH ARE DETERMINED TO BE ESSENTIAL FOR IDENTIFICATION.

Reply Instructions: Enter the reply in clear text. Separate multiple replies with a semicolon. (e.g., FEATGADJUSTABLE NOSE CLIP\*; FEATGADJUSTABLE NOSE PIECE; DISPOSABLE\*)

ALL\*

#### TEST J TEST DATA DOCUMENT

Definition: THE SPECIFICATION, STANDARD, DRAWING, OR SIMILAR INSTRUMENT THAT SPECIFIES ENVIRONMENTAL AND PERFORMANCE REQUIREMENTS OR TEST CONDITIONS UNDER WHICH AN ITEM IS TESTED AND ESTABLISHES ACCEPTABLE LIMITS WITHIN WHICH THE ITEM MUST CONFORM IDENTIFIED BY AN ALPHABETIC AND/OR NUMERIC REFERENCE NUMBER. INCLUDES THE COMMERCIAL AND GOVERNMENT ENTITY (CAGE) CODE OF THE ENTITY CONTROLLING THE INSTRUMENT.

Reply Instructions: Enter the applicable Reply Code from the table below, followed by the 5-position CAGE Code, a dash, and the document identification number.

(e.g., TESTJA12345-CWX654321\*;

TESTJA1234A-654321\$\$JB5556A-663654\*;

TESTJAA2345-654321\$JB55566-663654\*)

DEDLY DEDLY (AC20)

REPLY (AC28)
SPECIFICATION (Includes engineering type bulletins,
brochures, etc., that reflect specification type data in
specification format; excludes commercial catalogs,
industry directories, and similar trade publications,
reflecting general type data on certain environmental and
performance requirements and test conditions that are
shown as "typical," "average," "nominal," etc.)
STANDARD (Includes industry or association standards,
individual manufacturer standards, etc.)
DRAWING (This is the basic governing drawing, such as a
contractor drawing, original equipment manufacturer
drawing, etc.; excludes any specification, standard, or other
document that may be referenced in a basic governing
drawing)

ALL\*

#### SPCL G SPECIAL TEST FEATURES

Definition: TEST CONDITIONS AND RATINGS, OR ENVIRONMENTAL AND PERFORMANCE REQUIREMENTS THAT ARE DIFFERENT, MORE CRITICAL, OR MORE SPECIFIC THAN THOSE SPECIFIED IN A GOVERNING TEST DATA DOCUMENT.

Reply Instructions: Enter the reply in clear text. (e.g., SPCLGSELECTED AND TESTED FOR NAVIGATIONAL SYSTEMS\*)

ALL\*

#### ZZZK J SPECIFICATION/STANDARD DATA

Definition: THE DOCUMENT DESIGNATOR OF THE SPECIFICATION OR STANDARD WHICH ESTABLISHED THE ITEM OF SUPPLY.

Reply Instructions: Enter the applicable Reply Code from the table below, followed by the Commercial and Government Entity (CAGE) Code of the entity controlling the document, a dash, and the document designator. The agency that controls the limited coordination document must be preceded and followed by a slash following the designator. The word canceled or superseded must be preceded and followed by a slash for the designator. Professional and industrial association specifications/standards are differentiated from a manufacturer's specification in that the data has been coordinated and published by the professional and industrial association. Include amendments and revisions where applicable.

(e.g., ZZZKJT81337-30642B\*;

ZZZKJS81349-MIL-D-180 REV1/CANCELED/\*;

ZZZKJP80205-NAS1103\*;

ZZZKJS81349-MIL-C-1140C/CE/\*;

ZZZKJT81337-30642B\$\$JP80205-NAS1103\*)

<b>REPLY</b>	REPLY (AN62)
CODE	
S	GOVERNMENT SPECIFICATION
T	GOVERNMENT STANDARD
D	MANUFACTURERS SOURCE CONTROL
R	MANUFACTURERS SPECIFICATION
N	MANUFACTURERS SPECIFICATION CONTROL
M	MANUFACTURERS STANDARD
В	NATIONAL STANDARD/SPECIFICATION
A	PROFESSIONAL/INDUSTRIAL ASSOCIATION
	SPECIFICATION
P	PROFESSIONAL/INDUSTRIAL ASSOCIATION
	STANDARD

NOTE FOR MRC ZZZT: IF THE SPECIFICIATION/STANDARD CITED IN REPLY TO MRC ZZZK IS NONDEFINITIVE, REPLY TO MRC ZZZT. THIS REPLY IS THE DATA WHICH IS NOT RECORDED IN SEGMENT C.

ALL\* (See Note Above)

#### ZZZT J NONDEFINITIVE SPEC/STD DATA

Definition: THE NUMBER, LETTER, OR SYMBOL THAT INDICATES THE TYPE, STYLE, GRADE, CLASS, AND THE LIKE, OF AN ITEM IN A NONIDENTIFYING SPECIFICATION OR STANDARD.

Reply Instructions: Enter the applicable Reply Code from <u>Appendix A</u>, Table 3, followed by the appropriate number, letter, or symbol. (e.g., ZZZTJTY1\*; ZZZTJTY1\$\$JSTA\*; ZZZTJTY1\$JSTA\*)

ALL\*

# ZZZY G REFERENCE NUMBER DIFFERENTIATING CHARACTERISTICS

Definition: A FEATURE OF THE ITEM OF SUPPLY WHICH MUST BE SPECIFICALLY RECORDED WHEN THE REFERENCE NUMBER COVERS A RANGE OF ITEMS.

Reply Instructions: Enter the reply in clear text. (e.g., ZZZYGCOLOR CODED LEADS\*; ZZZYGAS DIFFERENTIATED BY MATERIAL\*)

ALL\*

#### CRTL A CRITICALITY CODE JUSTIFICATION

Definition: THE MASTER REQUIREMENT CODES OF THOSE REQUIREMENTS WHICH ARE TECHNICALLY CRITICAL BY REASON OF TOLERANCE, FIT, PERFORMANCE, OR OTHER CHARACTERISTICS WHICH AFFECT IDENTIFICATION OF THE ITEM.

Reply Instructions: Enter the Master Requirement Code for the requirement, the reply to which renders the item as being critical. (e.g., CRTLAMATL\*; CRTLAMATL\$\$ASURF\*)

Reply to this requirement only if the header record for the item identification for the item being identified has been coded as critical.

NOTE FOR MRC PRPY: IF DOCUMENT AVAILABILITY CODE B, D, F, OR H, REPLY TO MRC PRPY.

ALL\* (See Note Above)

PRPY A PROPRIETARY CHARACTERISTICS

Definition: IDENTIFICATION OF THOSE CHARACTERISTICS INCLUDED IN THE DESCRIPTION FOR WHICH A NON-GOVERNMENT ACTIVITY HAS IDENTIFIED ALL OR SELECTED CHARACTERISTICS OF THE ITEM AS BEING PROPRIETARY AND THEREFORE RESTRICTED FROM RELEASE OUTSIDE THE GOVERNMENT WITHOUT PRIOR PERMISSION OF THE ORIGINATOR OF THE DATA.

Reply Instructions: Enter the MRC codes of the individual characteristics of the description which are marked proprietary on the technical data, using AND coding (\$\$) for multiple characteristics. If all the MRCs are proprietary, enter the reply PACS. If none of the MRCs is proprietary, enter the reply NPAC. (e.g., PRPYAPACS\*; PRPYANPAC\*; PRPYAMATL\$\$ASURF\*)

ALL\*

ELRN G EXTRA LONG REFERENCE NUMBER

Definition: A REFERENCE NUMBER EXCEEDING 32 POSITIONS.

Reply Instructions: Enter the entire reference number. Do not include the 5-position Commercial and Government Entity (CAGE) Code unless there is more than one extra long reference number on the NSN, (e.g.,

ELRNGANN112036BIL060557LEN313605UZ62365\*).

If there is more than one extra long reference number on the NSN, include the CAGE or NCAGE and separate each reference by using the "&" character, (e.g., 28480 ANN112036BIL060557LEN313605UZ62365 & S1234 NN112036BIL060557LEN313605UZ62365).

In determining quantity of characters in the reference number, count will be made after modification in accordance with Volume 2, Chapter 9, FLIS Procedures Manual, DoD 4100.39-M.

NOTE FOR MRC NHCF: IF THE CRITICALITY CODE IS E, H, OR M, REPLY TO MRC NHCF.

ALL\* (See Note Above)

NHCF D NUCLEAR HARDNESS CRITICAL FEATURE

Definition: AN INDICATION OF THE NUCLEAR HARDNESS CRITICALITY OF THE ITEM.

Reply Instructions: Enter the Reply Code from the table below. (e.g., NHCFDCY\*)

REPLY CODE REPLY (AD05)
CY HARDENED

ALL\*

ELCD D EXTRA LONG CHARACTERISTIC DESCRIPTION

Definition: A DESCRIPTION THAT EXCEEDS 5000 CHARACTERS.

Reply Instructions: Enter the Reply Code from the table below. (e.g., ELCDDA\*)

REPLY (AN58)

<u>CODE</u>

A ADDITIONAL DESCRIPTIVE DATA ON MANUAL

**RECORD** 

NOTE FOR MRC ENAC: ANSWERING THIS MRC WILL GENERATE AN ENAC CODE IN THE ITEM IDENTIFICATION SEGMENT (A) OF THE NSN.

ALL\* (See Note Above)

ENAC D ENVIRONMENTAL ATTRIBUTE CODE

Definition: INDICATES THE TYPE OF PRODUCT THAT MEETS OR EXCEEDS THE GOVERNMENT GUIDELINES FOR ENVIRONMENTALLY PREFERRED CHARACTERISTICS

Reply Instructions: Enter the applicable Reply Code from the table below. (e.g., ENACDG4\*)

REPLY (EN02)

**CODE** 

G4

COMPREHENSIVE PROCUREMENT GUIDELINE -

VEHICULAR PRODUCTS - REBUILT VEHICULAR

**PARTS** 

#### **SECTION III**

APP
Kev MRC Mode Code Re

Key MRC Mode Code Requirements

**ALL** 

BBRJ D SPECIAL HANDLING FEATURE

APP

Key MRC Mode Code Requirements

Definition: THAT UNUSUAL OR UNIQUE CHARACTERISTIC(S) OR QUALITY(IES) OF AN ITEM WHICH NECESSITATES THE ESTABLISHMENT OF A REQUIREMENT FOR SPECIAL HANDLING.

Reply Instructions: Enter the applicable Reply Code from the table below. (e.g., BBRJDAD\*; BBRJDAD\$\$DAE\*)

REPLY CODE	REPLY (AM83)
AB	CORROSIVE
AD	<b>FLAMMABLE</b>
AE	FRAGILE
ΛŢ	HIMIDITY CON

AL HUMIDITY CONTROLLED

AK MAGNETIC

AM SHOCK PROTECTED

**ALL** 

AFJN D FRAGILITY FACTOR

Definition: THE MEASURE OF SENSITIVITY OF THE ITEM TO BE PACKAGED. A FACTOR USED BY PACKAGING ENGINEERS IN DEVISING PROPER CUSHIONING IN A PACKAGE.

Reply Instructions: Enter the applicable Reply Code from the table below. (e.g., AFJNDE\*)

REPLY CODE	REPLY (AD40)
D	DELICATE
В	EXTREMELY FRAGILE
E	MODERATELY DELICATE
F	MODERATELY RUGGED
G	RUGGED
C	VERY DELICATE

**ALL** 

ADZC D ENVIRONMENTAL PROTECTION

Definition: THE ENVIRONMENTAL ELEMENTS OR CONDITIONS THAT AN ITEM IS DESIGNED OR PROTECTED TO RESIST OR WITHSTAND SATISFACTORILY.

APP

Key MRC Mode Code Requirements

Reply Instructions: Enter the applicable Reply Code from <u>Appendix A</u>, Table 4. (e.g., ADZCDBV\*; ADZCDBV\$\$DBZ\*)

**ALL** 

AGAV G END ITEM IDENTIFICATION

Definition: THE NATIONAL STOCK NUMBER OR THE IDENTIFICATION INFORMATION OF THE END EQUIPMENT FOR WHICH THE ITEM IS A PART.

Reply Instructions: Enter the applicable reply in clear text.

(e.g., AGAVG3930-00-000-0000\*;

AGAVGFORKLIFT TRUCK, SMITH CORPORATION, MODEL 12, TYPE A \*)

**ALL** 

SURF D SURFACE TREATMENT

Definition: CONSISTS OF PLATING, DIP, AND/OR COATING THAT CANNOT BE WIPED OFF. PLATING AND/OR COATING IS ANY CHEMICAL AND/OR METALLIC ADDITIVE, ELECTROCHEMICAL, OR MILD MECHANICAL PROCESS WHICH PROTECTS A SURFACE.

Reply Instructions: Enter the applicable Reply Code from <u>Appendix A</u>, Table 5. (e.g., SURFDCD0010\*; SURFDAN0000\$\$DVAB000\*; SURFDAN0000\$\$DCN0000\*)

ALL

SUPP G SUPPLEMENTARY FEATURES

Definition: CHARACTERISTICS OR QUALITIES OF AN ITEM, NOT COVERED IN ANY OTHER REQUIREMENT, WHICH ARE CONSIDERED ESSENTIAL INFORMATION FOR ONE OR MORE FUNCTIONS EXCLUDING NSN ASSIGNMENT.

Reply Instructions: Enter the reply in clear text. (e.g., SUPPGMAY INCL HOLE IN UPPER SUPPORT FOR MTG DURING SHIPMENT\*)

**ALL** 

ZZZV G FSC APPLICATION DATA

APP

Key MRC Mode Code Requirements

Definition: THE JUSTIFICATION FOR THE ASSIGNMENT OF A FEDERAL SUPPLY CLASS (FSC) TO AN ITEM BASED ON THE CLASSIFICATION OF THE NEXT HIGHER CLASSIFIABLE ASSEMBLY.

Reply Instructions: Enter the name of the next higher classifiable assembly in clear text. (e.g., ZZZVGACFT HYDRAULIC SYSTEM\*)

ALL

CXCY G PART NAME ASSIGNED BY CONTROLLING AGENCY

Definition: THE NAME ASSIGNED TO THE ITEM BY THE GOVERNMENT AGENCY OR COMMERCIAL ORGANIZATION CONTROLLING THE DESIGN OF THE ITEM.

Reply Instructions: Enter the reply in clear text. (e.g., CXCYGLINE PROCESSOR CONTROL BOARD\*)

**ALL** 

HZRD D HAZARDOUS SUBSTANCES

Definition: THE SUBSTANCES AND/OR MATERIALS CONTAINED IN THE ITEM THAT HAVE BEEN IDENTIFIED AS HAZARDOUS OR ENVIRONMENTALLY DAMAGING BY THE ENVIRONMENTAL PROTECTION AGENCY OR OTHER AUTHORIZED GOVERNMENT AGENCY.

Reply Instructions: Enter the applicable Reply Code from the table below. (e.g., HZRDDHAZ008\*; HZRDDHAZ222\$\$DHAZ092\*)

REPLY CODE
HAZ008
CADMIUM
HAZ222
IRON
HAZ092
MAGNESIUM
HAZ030
MAGNESIUM ALLOY
HAZ052
ZINC

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# Table 1 - MATERIALS

# MATERIALS

REPLY CODE	REPLY (AD09)
ALC000	ALUMINUM
AL0000	ALUMINUM ALLOY
AL2388	ALUMINUM ALLOY, AMS 4111
AL1045	ALUMINUM ALLOY, AMS 4135
AL2389	ALUMINUM ALLOY, MIL-A-22771, ALLOY 7075, T6
AL1259	ALUMINUM ALLOY, MIL-A-22771, ALLOY 7075, T73
AL1449	ALUMINUM ALLOY, QQ-A-200
AL0030	ALUMINUM ALLOY, QQ-A-200/2, ALLOY 2014
AL0115	ALUMINUM ALLOY, QQ-A-200/3
AL0031	ALUMINUM ALLOY, QQ-A-200/3, ALLOY 2024
AL0205	ALUMINUM ALLOY, QQ-A-200/3, ALLOY 2024, T8511
AL0116	ALUMINUM ALLOY, QQ-A-200/4
AL0118	ALUMINUM ALLOY, QQ-A-200/6
AL0036	ALUMINUM ALLOY, QQ-A-200/8, ALLOY 6061
AL0037	ALUMINUM ALLOY, QQ-A-200/8, ALLOY 6062
AL0121	ALUMINUM ALLOY, QQ-A-200/9
AL0038	ALUMINUM ALLOY, QQ-A-200/9, ALLOY 6063
AL0123	ALUMINUM ALLOY, QQ-A-200/11
AL0040	ALUMINUM ALLOY, QQ-A-200/11, ALLOY 7075
AL0242	ALUMINUM ALLOY, QQ-A-200/11, ALLOY 7075, T6
AL0241	ALUMINUM ALLOY, QQ-A-200/11, ALLOY 7075, 0
AL0885	ALUMINUM ALLOY, QQ-A-225
AL0127	ALUMINUM ALLOY, QQ-A-225/2
AL0267	ALUMINUM ALLOY, QQ-A-225/2, ALLOY 3003, F
AL0262	ALUMINUM ALLOY, QQ-A-225/2, ALLOY 3003, H12
AL0263	ALUMINUM ALLOY, QQ-A-225/2, ALLOY 3003, H14
	<b>C1</b>

REPLY CODE	REPLY (AD09)
AL0264	ALUMINUM ALLOY, QQ-A-225/2, ALLOY 3003, H16
AL0265	ALUMINUM ALLOY, QQ-A-225/2, ALLOY 3003, H18
AL0266	ALUMINUM ALLOY, QQ-A-225/2, ALLOY 3003, H112
AL0261	ALUMINUM ALLOY, QQ-A-225/2, ALLOY 3003, 0
AL0272	ALUMINUM ALLOY, QQ-A-225/4, ALLOY 2014, T4
AL0273	ALUMINUM ALLOY, QQ-A-225/4, ALLOY 2014, T6
AL0129	ALUMINUM ALLOY, QQ-A-225/5
AL0047	ALUMINUM ALLOY, QQ-A-225/6, ALLOY 2024
AL0280	ALUMINUM ALLOY, QQ-A-225/6, ALLOY 2024, T4
AL0281	ALUMINUM ALLOY, QQ-A-225/6, ALLOY 2024, T6
AL0279	ALUMINUM ALLOY, QQ-A-225/6, ALLOY 2024, T351
AL0282	ALUMINUM ALLOY, QQ-A-225/6, ALLOY 2024, T851
AL0278	ALUMINUM ALLOY, QQ-A-225/6, ALLOY 2024, 0
AL0048	ALUMINUM ALLOY, QQ-A-225/7, ALLOY 5052
AL0288	ALUMINUM ALLOY, QQ-A-225/7, ALLOY 5052, F
AL0284	ALUMINUM ALLOY, QQ-A-225/7, ALLOY 5052, H32
AL0285	ALUMINUM ALLOY, QQ-A-225/7, ALLOY 5052, H34
AL0286	ALUMINUM ALLOY, QQ-A-225/7, ALLOY 5052, H36
AL0287	ALUMINUM ALLOY, QQ-A-225/7, ALLOY 5052, H38
AL0283	ALUMINUM ALLOY, QQ-A-225/7, ALLOY 5052, 0
AL0132	ALUMINUM ALLOY, QQ-A-225/8
AL0049	ALUMINUM ALLOY, QQ-A-225/8, ALLOY 6061
AL0290	ALUMINUM ALLOY, QQ-A-225/8, ALLOY 6061, T4
AL0293	ALUMINUM ALLOY, QQ-A-225/8, ALLOY 6061, T6
AL0291	ALUMINUM ALLOY, QQ-A-225/8, ALLOY 6061, T42
AL0292	ALUMINUM ALLOY, QQ-A-225/8, ALLOY 6061, T451
AL0294	ALUMINUM ALLOY, QQ-A-225/8, ALLOY 6061, T651
AL0289	ALUMINUM ALLOY, QQ-A-225/8, ALLOY 6061, 0
AL0133	ALUMINUM ALLOY, QQ-A-225/9
AL0298	ALUMINUM ALLOY, QQ-A-225/9, ALLOY 7075, T73
AL0087	ALUMINUM ALLOY, QQ-A-250
AL0059	ALUMINUM ALLOY, QQ-A-250/11, ALLOY 6061
AL0387	ALUMINUM ALLOY, QQ-A-250/11, ALLOY 6061, T6
AL0393	ALUMINUM ALLOY, QQ-A-250/12, ALLOY 7075, T6
AL0062	ALUMINUM ALLOY, QQ-A-250/17, ALLOY 7079
AL0171	ALUMINUM ALLOY, QQ-A-254A, CLASS 24S, T4-CANCELED
AL0883	ALUMINUM ALLOY, QQ-A-255-CANCELED
AL1568	ALUMINUM ALLOY, QQ-A-268, ALLOY 2024, T4-CANCELED
AL1977	ALUMINUM ALLOY, QQ-A-268, COMP 2024, T4-CANCELED
AL0544	ALUMINUM ALLOY, QQ-A-268, COND T4-CANCELED
AL0793	ALUMINUM ALLOY, QQ-A-277, ALLOY 7075-CANCELED
AL0638	ALUMINUM ALLOY, QQ-A-277-CANCELED
AL0545	ALUMINUM ALLOY, QQ-A-282-CANCELED
AL0902	ALUMINUM ALLOY, QQ-A-282, T6-CANCELED
AL0636	ALUMINUM ALLOY, QQ-A-283-CANCELED
AL0522	ALUMINUM ALLOY, QQ-A-367
AL0063	ALUMINUM ALLOY, QQ-A-367, ALLOY 2014
AL1570	ALUMINUM ALLOY, QQ-A-367, ALLOY 2014, T6
	62
	<b>52</b>

DEDLU GODE	DEDLY (ADOO)
REPLY CODE	REPLY (AD09)
AL0796	ALUMINUM ALLOY, QQ-A-367, ALLOY 6061
AL0072	ALUMINUM ALLOY, QQ-A-367, ALLOY 7075
AL0420	ALUMINUM ALLOY, QQ-A-367, COMP 2014, T6
AL0452	ALUMINUM ALLOY, QQ-A-367, COMP 6061
AL0435	ALUMINUM ALLOY, QQ-A-367, COMP 7075, T6
AL0163	ALUMINUM ALLOY, QQ-A-596
AL1380	ALUMINUM ALLOY, QQ-A-596, ALLOY 356, T6
AL0162	ALUMINUM ALLOY, QQ-A-601, ALLOY 40E, TEMPER T5
AL0159	ALUMINUM ALLOY, QQ-A-601, ALLOY 356, TEMPER T4
AL0160	ALUMINUM ALLOY, QQ-A-601, ALLOY 356, TEMPER T6
AL0161	ALUMINUM ALLOY, QQ-A-601, ALLOY 356, TEMPER T51
AL0157	ALUMINUM ALLOY, QQ-A-601, CLASS 3M, T6
AL0158	ALUMINUM ALLOY, QQ-A-601, CLASS 17M, T5
AL0174	ALUMINUM ALLOY, QQ-A-601, T6
AL0676	ALUMINUM ALLOY, SAE 332
AL1774	ALUMINUM ALLOY, WW-T-700
AL0931	ALUMINUM ALLOY, WW-T-700/3, T3, TYPE 1
AL0758	ALUMINUM ALLOY, WW-T-785, TEMPER T3-CANCELED
AL0102	ALUMINUM ALLOY, 2024
BR0000	BRASS
FE0000	IRON
FEA000	IRON, CAST
FE0270	IRON, CAST, ASTM A159
FE0012	IRON, CAST, QQ-I-652
FE0008	IRON, CAST, QQ-I-652, CLASS 60
FE0029	IRON, CAST, SAE G3000
FEC000	IRON, MALLEABLE
FE0020	IRON, MALLEABLE, ASTM A47
FE0166	IRON, MIL-I-24137
FE0167	IRON, MIL-I-24137, CLASS A
FE0088	IRON, QQ-I-652, CLASS 25
FE0067	IRON, QQ-I-652A, GRADE B
FEB000	IRON, WROUGHT
MG0000	MAGNESIUM
MGA000	MAGNESIUM ALLOY
MG0022	MAGNESIUM, AMS 4424
MG0015	MAGNESIUM, QQ-M-56, EZ33A
MG0016	MAGNESIUM, QQ-M-56, HK31A
MG0017	MAGNESIUM, QQ-M-56, HZ32A
MG0018	MAGNESIUM, QQ-M-56, ZK51
MG0020	MAGNESIUM, QQ-M-56, ZK61
PCAAAL	PLASTIC, TETRAFLUOROETHYLENE (Teflon)
RC0020	RUBBER, AMS 3209
RC0020	RUBBER, AMS 3304
RC0021 RC0022	RUBBER, AMS 7270
RC0022 RC0023	RUBBER, AMS 7270 RUBBER, AMS 7271
	·
RC0024	RUBBER, AMS 7274
RC0025	RUBBER, AMS 7274
	<b>6</b> 2

DEDI 11 GODE	DEDVIK (1 DOO)
REPLY CODE	REPLY (AD09)
RC0026	RUBBER, AMS 7278
RC0027	RUBBER, ASTM D735-59T, GRADE SC615B
RC0028	RUBBER, ASTM D735-61T, GRADE SC712BE1E3F1
RC0029	RUBBER, ASTM D1056-59T, GRADE SC013BF1
RC0031	RUBBER, HH-G-156, CLASS A
RC0032	RUBBER, HH-G-156, CLASS B
RC0033	RUBBER, HH-G-156, CLASS C
RC0034	RUBBER, HH-G-160
RC0030	RUBBER, HH-P-61
RCB000	RUBBER, NATURAL
	Rubber, Natural and Synthetic (use Reply Codes RCB000 and RCC000)
RCU000	RUBBER, NATURAL, UNCURED
RCC000	RUBBER, SYNTHETIC
RCW000	RUBBER, SYNTHETIC AND NYLON
RCY000	RUBBER, SYNTHETIC, CURED
	Rubber, Synthetic or Natural (use Reply Codes RCC000 or RCB000)
RCX000	RUBBER, SYNTHETIC, UNCURED
ST0000	STEEL
ST8096	STEEL, AISI C1015
ST6465	STEEL, AISI E4340
ST6933	STEEL, AISI MTX1020
ST6342	STEEL, AISI MT1015
ST6932	STEEL, AISI MT1020
ST0006	STEEL, AISI TS8122
ST6335	STEEL, AISI 1010
ST6366	STEEL, AISI 1040
ST6928	STEEL, AISI 3140
ST6929	STEEL, AISI 3140H
ST6000	STEEL, AISI 4130
ST6447	STEEL, AISI 4130H
ST6001	STEEL, AISI 4140
ST6451	STEEL, AISI 4140H
ST6463	STEEL, AISI 4340
ST6486	STEEL, AISI 5120
ST6487	STEEL, AISI 5120H
ST6488	STEEL, AISI 5130
ST6489	STEEL, AISI 5130H
ST6492	STEEL, AISI 5135
ST6493	STEEL, AISI 5135H
ST6494	STEEL, AISI 5140
ST6495	STEEL, AISI 5140H
ST6523	STEEL, AISI 8630
ST6524	STEEL, AISI 8630H
ST6527	STEEL, AISI 8640
ST6528	STEEL, AISI 8640H
ST2396	STEEL, AMS 5612
ST1917	STEEL, AMS 5643
ST1917 ST1956	STEEL, AMS 5045 STEEL, AMS 6370 or SAE 4130
511750	51 EEC, AMS 0570 01 SAE 4130

DEDLY CODE	DEDLY (ADOO)
REPLY CODE ST3681	REPLY (AD09) STEEL, AMS 6371
ST3791	STEEL, AMS 6371, COND HT
ST2511	STEEL, AMS 6371, COND H1 STEEL, AMS 6372
ST3792	
ST3095	STEEL, AMS 6372, COND HT STEEL, AMS 6381
ST1803	STEEL, AMS 6415
ST2514	STEEL, AMS 6487
ST3796	STEEL, ANT-68, COND N
ST1052	STEEL, CARBON
STB000	STEEL, CARBON STEEL, CORROSION RESISTING
SC0035	STEEL, CORROSION RESISTING STEEL, CORROSION RESISTING, AMS 5643
ST1292	STEEL, FED STD 66, AISI/SAE 1015
ST1292 ST1335	STEEL, FED STD 66, AISI/SAE 1013 STEEL, FED STD 66, AISI/SAE 4130
	STEEL, FED STD 66, AISI/SAE 4340
ST1356	
ST1617	STEEL, FED STD 66, AISI 304/SAE 30304
ST1634	STEEL, FED STD 66, AISI 431/SAE 51431
ST6091	STEEL, FED STD 66, COMP 1035
ST2839	STEEL, MIL-S-5000, COMP 4340
ST2823	STEEL, MIL-S-5000, COMP 4340, COND A
STA175	STEEL, MIL-S-5000, COND A
ST1896	STEEL, MIL-S-6050
ST1840	STEEL, MIL-S-6758
ST2778	STEEL, MIL-S-6758, COMP 4130
ST1898	STEEL, MIL-S-6758, SAE 4130
ST3818	STEEL, MIL-S-8606, TYPE 304
ST3220	STEEL, MIL-S-46850, TYPE 3, GRADE 300
ST8205	STEEL, MIL-T-6732
ST8605	STEEL, MIL-T-6735
ST8673	STEEL, MIL-T-6735, COND N
ST3680	STEEL, MIL-T-6736
STB841	STEEL, MIL-T-6736, COMP 4130, COND N
ST8377	STEEL, MIL-T-6736, COND N
ST3320	STEEL, MIL-T-6736, TYPE 1
ST3682	STEEL, MIL-T-6736, TYPE 1, COND N
ST1718	STEEL, QQ-S-624-CANCELED
ST1697	STEEL, QQ-S-634, COMP 1020-CANCELED
ST2032	STEEL, QQ-S-763
ST1646	STEEL, QQ-S-763, CLASS 302
ST1647	STEEL, QQ-S-763, CLASS 303
ST1649	STEEL, QQ-S-763, CLASS 304
ST1839	STEEL, QQ-S-763, CLASS 304, COND A
ST1650	STEEL, QQ-S-763, CLASS 304L
ST1651	STEEL, QQ-S-763, CLASS 305
ST1652	STEEL, QQ-S-763, CLASS 309
ST1653	STEEL, QQ-S-763, CLASS 310
ST1654	STEEL, QQ-S-763, CLASS 316
ST1656	STEEL, QQ-S-763, CLASS 321
ST1657	STEEL, QQ-S-763, CLASS 347
	65

REPLY CODE	REPLY (AD09)
ST1660	STEEL, QQ-S-763, CLASS 410
ST1661	STEEL, QQ-S-763, CLASS 414
ST1662	STEEL, QQ-S-763, CLASS 416
ST1664	STEEL, QQ-S-763, CLASS 420
ST1779	STEEL, QQ-S-763, CLASS 420, COND A
ST1665	STEEL, QQ-S-763, CLASS 430
ST1666	STEEL, QQ-S-763, CLASS 431
ST1667	STEEL, QQ-S-763, CLASS 440A
ST1668	STEEL, QQ-S-763, CLASS 440C
STC493	STEEL, QQ-T-825, COMP 4130-CANCELED
ST7497	STEEL, QQ-T-825, COMP 4140-CANCELED
STC495	STEEL, QQ-T-825, COMP 8630-CANCELED
STA177	STEEL, QQ-T-830, COMP MT1010, COND CDSR-CANCELED
STA176	STEEL, QQ-T-830, COND CD-CANCELED
ST5085	STEEL, QQ-W-423, COMP 302
ST6930	STEEL, QQ-W-423, COMP 303
ST5086	STEEL, QQ-W-423, COMP 304
ST6931	STEEL, QQ-W-423, COMP 305
ST2804	STEEL, QQ-W-423, COMP 310
ST2805	STEEL, QQ-W-423, COMP 316
ST5097	STEEL, SAE 1026
ST6573	STEEL, SAE 1035
STD000	STEEL, STAINLESS
TT0000	TITANIUM ALLOY
TT0001	TITANIUM ALLOY, AMS 4900
TT0004	TITANIUM ALLOY, AMS 4921
TT0005	TITANIUM ALLOY, AMS 4925
TT0007	TITANIUM ALLOY, MIL-T-9047, CLASS 1
TT0008	TITANIUM ALLOY, MIL-T-9047, CLASS 6
ZNL000	ZINC ALLOY

## Table 2 - THREAD SERIES

## THREAD SERIES

REPLY CODE	REPLY (AH06)
AN	ANPT
BF	BSF
BS	BSP.TR EXT
BR	BSP.TR INT
BW	BSW
FP	F-PTF
SM	ISO M
SS	ISO S
NH	NH
	Nonstandard (use Reply Code NS)
SP	NPS
SC	NPSC

REPLY CODE	REPLY (AH06)
SF	NPSF
SH	NPSH
PS	NPSI
SL	NPSL
PM	NPSM
NP	NPT
NT	NPTF
PT	PTF-SAE SHORT
PP	PTF-SPL
PE	PTF-SPL EXTRA SHORT
PF	PTF-SPL SHORT
SJ	SI
SK	SI-M
UN	UN
NC	UNC
NE	UNEF
NF	UNF
NJ	UNJ
JC	UNJC
JE	UNJEF
JF	UNJF
NS	UNS

# Table 3 - NONDEFINITIVE SPEC/STD DATA NONDEFINITIVE SPEC/STD DATA

DEDLY CODE	DEDLY (ADOS)
REPLY CODE	REPLY (AD08)
AL	ALLOY
AN	ANNEX
AP	APPENDIX
AC	APPLICABILITY CLASS
AR	ARRANGEMENT
AS	ASSEMBLY
AB	ASSORTMENT
BX	BOX
CY	CAPACITY
CA	CASE
CT	CATEGORY
CL	CLASS
CE	CODE
CR	COLOR
CC	COMBINATION CODE
CN	COMPONENT
CP	COMPOSITION
CM	COMPOUND
CD	CONDITION
CS	CONSTRUCTION
CD	CONSTRUCTION

REPLY CODE	REPLY (AD08)
DE	DESIGN
DG	DESIGNATOR
DW	DRAWING NUMBER
EG	EDGE
EN	END
FY	FAMILY
FG	FIGURE
FN	FINISH
FM	FORM
FA	FORMULA
GR	GRADE
GP	GROUP
NS	INSERT
TM	ITEM
KD	KIND
KT	KIT
LG	LENGTH
LT	LIMIT
MK	MARK
ML	MATERIAL
MH	MESH
ME	METHOD
MD	MODEL
MT	MOUNTING
NR	NUMBER
PT	PART
PN	PATTERN
PC	PHYSICAL CONDITION
PS	PIECE
PL	PLAN
PR	POINT
QA	QUALITY
RN	RANGE
RT	RATING
RF	REFERENCE NUMBER
SC	SCHEDULE
SB	SECTION
SL	SELECTION
SE	SERIES
SV	SERVICE
SX	SET
SA	SHADE
SH	SHAPE
SG	SHEET
SZ	SIZE
	SPECIES
PZ	
SQ	SPECIFICATION SHEET
SD	SPEED

REPLY CODE	REPLY (AD08)
ST	STYLE
SS	SUBCLASS
SF	SUBFORM
SP	SUBTYPE
SN	SURFACE CONDITION
SY	SYMBOL
SM	SYSTEM
TB	TABLE
TN	TANNAGE
TP	TEMPER
TX	TEXTURE
TK	THICKNESS
TT	TREATMENT
TR	TRIM
TY	TYPE
YN	UNIT
VA	VARIETY
WT	WEIGHT
WD	WIDTH

# Table 4 - ENVIRONMENTAL PROTECTIONS ENVIRONMENTAL PROTECTIONS

REPLY CODE	REPLY (AA65)
GK	CORROSION RESISTANT
BV	DUSTPROOF
BW	EXPLOSION PROOF
BQ	VAPOR
AN	WATER, FRESH
AP	WATER, SALT
BX	WATERTIGHT
AR	WEATHERPROOF

# Table 5 - SURFACE TREATMENTS SURFACE TREATMENTS

REPLY CODE	REPLY (AD09)
AN0000	ANODIZED
ANA000	ANODIZED BLACK
AN0005	ANODIZED, MIL-A-8625, TYPE 1, CLASS 1
AN0006	ANODIZED, MIL-A-8625, TYPE 1, CLASS 2
AN0007	ANODIZED, MIL-A-8625, TYPE 2, CLASS 1
AN0008	ANODIZED, MIL-A-8625, TYPE 2, CLASS 2
AN0009	ANODIZED, MIL-A-8625, TYPE 3, CLASS 1
AN0010	ANODIZED, MIL-A-8625, TYPE 3, CLASS 2
CD0000	CADMIUM

REPLY CODE	REPLY (AD09)
CD0004	CADMIUM, QQ-P-416, TYPE 1, CLASS 1
CD0005	CADMIUM, QQ-P-416, TYPE 1, CLASS 2
CD0006	CADMIUM, QQ-P-416, TYPE 1, CLASS 3
CD0007	CADMIUM, QQ-P-416, TYPE 2, CLASS 1
CD0008	CADMIUM, QQ-P-416, TYPE 2, CLASS 2
CD0009	CADMIUM, QQ-P-416, TYPE 2, CLASS 3
CD0010	CADMIUM, QQ-P-416, TYPE 3, CLASS 1
CD0011	CADMIUM, QQ-P-416, TYPE 3, CLASS 2
CD0012	CADMIUM, QQ-P-416, TYPE 3, CLASS 3
CN0000	CHROMATE (Iridite) (Cronak)
CH0000	CHROME
DC0000	DICHROMATE
EN0000	ENAMEL
ENB000	ENAMEL, ALUMINUM BAKED-ON OVER ZINC COATING
EN0001	ENAMEL, MIL-E-15090, TYPE 2, CLASS 2
GB0001	GALVANIZED, ASTM A153
GBD000	GALVANIZED, HOT DIP
LQ0000	LACQUER
NFG000	NICKEL PLATED
PNG000	PAINT
PH0000	PHOSPHATE
CZ0000	POTASSIUM SILICATE
RHA000	RHODIUM PLATED
RCA000	RUBBER COATED
AGE000	SILVER PLATED
SNF000	TIN PLATED
VAB000	VARNISH
ZN0000	ZINC
	Zinc and Phosphate (Bonderized) (use Reply Codes ZN0000 and PH0000)
7NI 4 000	ZINC CUDOMATE

# Table 6 - FEATURES PROVIDED

ZINC CHROMATE

# FEATURES PROVIDED

REPLY CODE REPLY (AN47)

ZNA000

TUBE DE CODE	
AJZ	AIR PRESSURE RESERVOIR
AKA	BALL LOCK
AKS	BLEEDER VALVES
AKB	BY-PASS VALVE
AKC	CAM AND JACK SHAFT ASSEMBLY
AAGQ	CLEVIS PIN
AABK	CUSHIONED STROKE
AABL	FILLER PLUG
FEV	FIRST PISTON ROD END LUBRICATION FACILITY
EUM	FLOW METERING DEVICE
AABM	GEAR ADJUSTER
AKD	HYDRAULIC RESERVOIR

REPLY CODE REPLY (AN47)

AAGR HYDRO-LATCH LOCK AKE INTEGRAL LOCK

AKF INTERNAL CHECK VALVE

AKG LOCKING DEVICE
CRK MANUAL OVERRIDE
AKH MICRO SWITCH
AKJ PISTON LOCK

AKK PISTON LOCK-TOGGLE ASSEMBLY INDICATOR

CMR PISTON ROD AKL POPPET

AKM RELIEF VALVE AABN RUBBER BOOT

FEW SECOND PISTON ROD END LUBRICATION FACILITY

AKN SEQUENCE SWITCH
AABP SERRATED ADJUSTER
AAGS SHUTTLE VALVE
AKQ SWITCH ACTUATOR
AKP SWIVEL BLOCK
AKR SWIVEL FITTINGS
EUL TRANSDUCER

# **Reference Drawing Groups**

REFERENCE DRAWING GROUP A Tables	73
REFERENCE DRAWING GROUP A	75
REFERENCE DRAWING GROUP B Tables	77
REFERENCE DRAWING GROUP B	78
REFERENCE DRAWING GROUP C	81

# REFERENCE DRAWING GROUP A Tables PISTON ROD END STYLES

#### INDEX OF MASTER REQUIREMENT CODES

Enter the applicable I/SAC from Table 1 below, followed by the Mode Code, followed by the applicable Reply Codes from Tables 2 and 3 below, followed by the numeric value.

(e.g., AMDX2DAJAA1.250\*; AMDX2DAJAB0.950\$\$JACA1.25\*; AMDX2DBJAB0.950\$\$JAC1.25\*; AMDX2DCJAB1.500\$\$JAC1.750\*)

	,
Table 1	
REPLY CODE	REPLY (AA05)
2DA	ALL WORKING ENDS
2DB	SMALLEST WORKING END
2DC	LARGEST WORKING END
Table 2	
REPLY CODE	REPLY (AA05)
A	INCHES
L	MILLIMETERS
Table 3	
REPLY CODE	REPLY (AC20)
A	NOMINAL

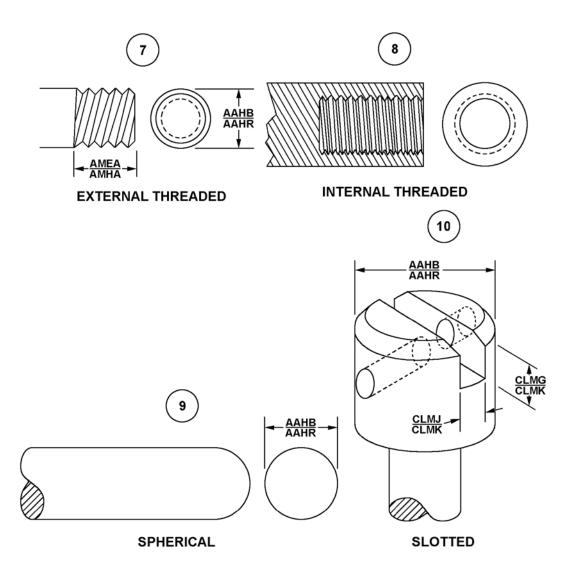
<u>REPLY CODE</u>	<u>REPLY (AC20)</u>
A	NOMINAL
В	MINIMUM
C	MAXIMUM

<u>MRC</u>	Mode Code	Name of Dimension
AAHB	J	FIRST END OUTSIDE DIAMETER
AMDX	J	FIRST END HOLE DIAMETER
AMEA	J	FIRST END EXTERNAL THREAD LENGTH
AMPC	J	FIRST END THICKNESS AT MOUNTING HOLES
CDTR	J	FIRST END TONGUE LENGTH
CLMB	J	FIRST END LARGEST INSIDE DIAMETER
CLMD	J	FIRST END FORK WIDTH
CLMG	J	FIRST END FORK DEPTH
CLMJ	J	FIRST END FORK SPAN WIDTH
AAHR	J	SECOND END OUTSIDE DIAMETER

MRC	Mode Code	Name of Dimension
AMGS	J	SECOND END HOLE DIAMETER
AMHA	J	SECOND END EXTERNAL THREAD LENGTH
AMPM	J	SECOND END THICKNESS AT MOUNTING HOLES
CDTS	J	SECOND END TONGUE LENGTH
CLMC	J	SECOND END LARGEST INSIDE DIAMETER
CLMF	J	SECOND END FORK WIDTH
CLMH	J	SECOND END FORK DEPTH
CLMK	J	SECOND END FORK SPAN WIDTH

#### REFERENCE DRAWING GROUP A

# PISTON ROD END STYLES 1 AMPC AMPM **AAHB** AMPC AMPM **AAHB** AAHR AAHR AMDX AMGS AMDX AMGS CLMB CLMC **BUSHING TYPE RING TYPE** 3 CLMD CLMF AAHB AMPC AAHR AMPM CLMB CLMC CLMG CLMH AMDX AMGS AMDX AMGS FORK TYPE (CLEVIS) **BEARING TYPE** 5 CLMD CLMF CLMD CLMF AMPC AMPM CLMG CLMH CDTR CDTS **SLOT TYPE TONGUE TYPE**



# REFERENCE DRAWING GROUP B Tables MOUNTING PROVISION ARRANGEMENT STYLES

# INDEX OF MASTER REQUIREMENT CODES

Enter the applicable Reply Codes from Tables 1 and 2 below, followed by the numeric value. (e.g., CLMRJAA1.500\*; CLMRJLA38.1\*; CLMRJAB1.500\$\$JAC1.525\*)

NOTE FOR MRC CLMR: IF UNEQUALLY SPACED HOLES, USE AND CODING BEGINNING WITH THE HOLE NEAREST THE FIRST PISTON END.

(E.G., CLMRJAA1.250\*; CLMRJAB1.500\$\$JAC1.525\*)

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REPLY CODE	REPLY (AA05)
A	<b>INCHES</b>
L	MILLIMETERS

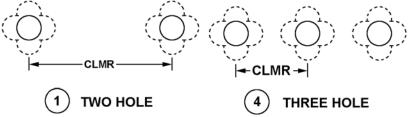
#### Table 2

REPLY CODE	REPLY (AC20)
A	NOMINAL
В	MINIMUM
C	MAXIMUM

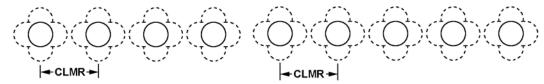
MRC	Mode Code	Name of Dimension
AFDS	J	LONGEST HORIZONTAL DISTANCE BETWEEN MOUNTING CENTERS
AFDT	J	SHORTEST HORIZONTAL DISTANCE BETWEEN MOUNTING CENTERS
AFDV	J	LONGEST VERTICAL DISTANCE BETWEEN MOUNTING CENTERS
AFDW	J	SHORTEST VERTICAL DISTANCE BETWEEN MOUNTING CENTERS
AZCR	J	MOUNTING FACILITY CIRCLE DIAMETER
CLMR	J	CENTER TO CENTER DISTANCE BETWEEN MOUNTING PROVISIONS

#### REFERENCE DRAWING GROUP B

#### MOUNTING PROVISION ARRANGEMENT STYLES



- **TWO STUD**
- THREE STUD
- TWO SLOT
- THREE SLOT



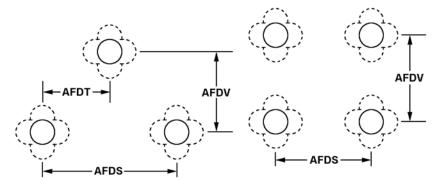
7 **FOUR HOLE**  **FIVE HOLE** 

**FOUR STUD** 

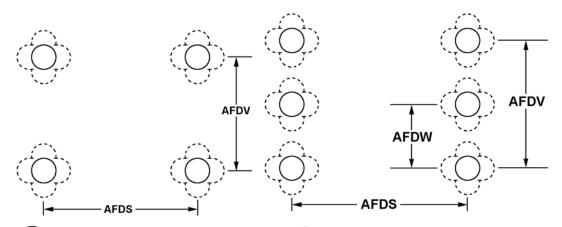
**FIVE STUD** 

**FOUR SLOT** 

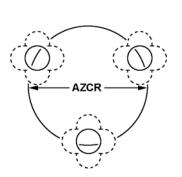
**FIVE SLOT** 

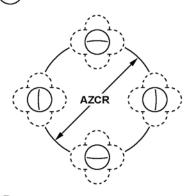


- THREE HOLE TRIANGULAR (16)
- **FOUR HOLE SQUARE**
- THREE STUD TRIANGULAR
  - (17 **FOUR STUD SQUARE**
- THREE SLOT TRIANGULAR (18
- **FOUR SLOT SQUARE**

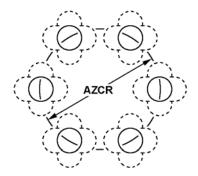


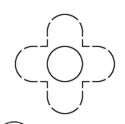
- (19) FOUR HOLE RECTANGULAR
- 20) FOUR STUD RECTANGULAR
- (21) FOUR SLOT RECTANGULAR
- (22) SIX HOLE RECTANGULAR
- (23) SIX STUD RECTANGULAR
- (24) SIX SLOT RECTANGULAR





- (25) THREE HOLE BOLT CIRCLE (28) FOUR HOLE BOLT CIRCLE
- (26) THREE STUD BOLT CIRCLE (29) FOUR STUD BOLT CIRCLE
- (27) THREE SLOT BOLT CIRCLE (30) FOUR SLOT BOLT CIRCLE





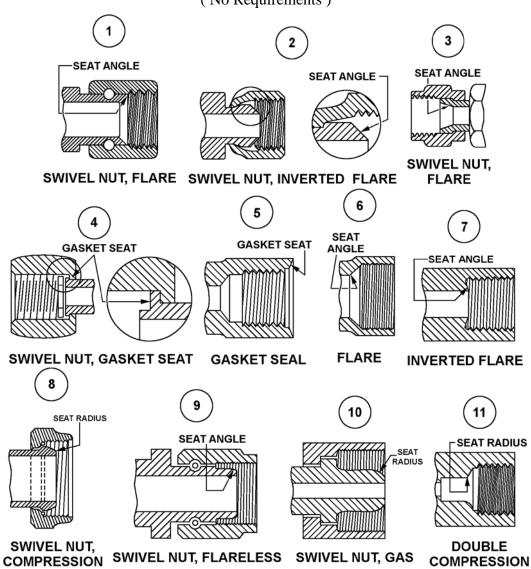
- (31) SIX HOLE BOLT CIRCLE
- 34 SINGLE HOLE
- (32) SIX STUD BOLT CIRCLE
- (35) SINGLE STUD
- 33 SIX SLOT BOLT CIRCLE
- (36) SINGLE SLOT

#### REFERENCE DRAWING GROUP C

#### **PORT STYLES**

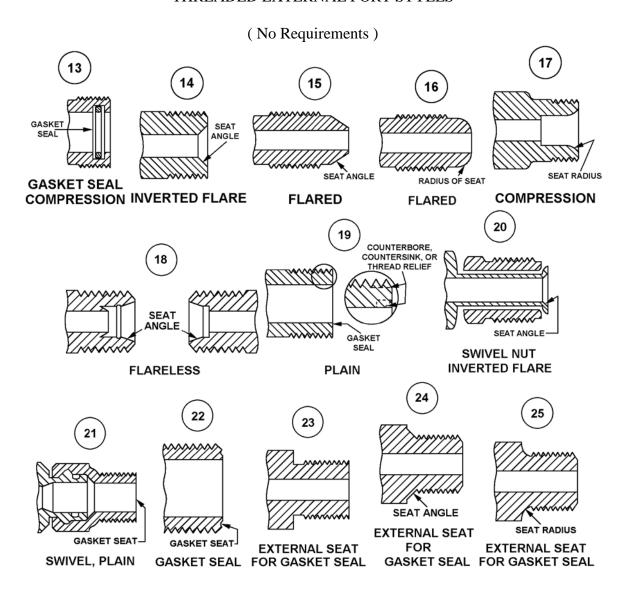
#### THREADED INTERNAL PORT STYLES

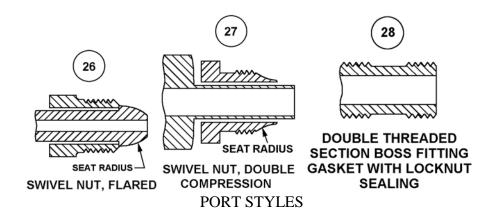
( No Requirements )



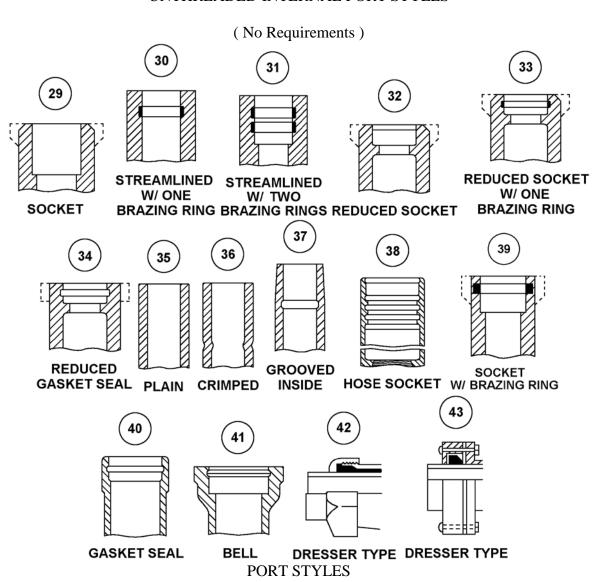


#### THREADED EXTERNAL PORT STYLES



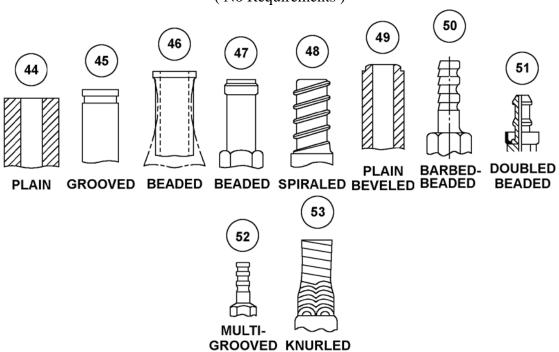


#### UNTHREADED INTERNAL PORT STYLES



# UNTHREADED EXTERNAL PORT STYLES

( No Requirements )



# **Technical Data Tables**

There are no Technical Data Tables for this publication.

# STANDARD FRACTION TO DECIMAL CONVERSION CHART

4ths	8ths	<u>16ths</u>	32nds	64ths	<u>To 3</u>	<u>To 4</u>	4ths	8ths	16ths	32nds	64ths	<u>To 3</u>	<u>To 4</u>
<del>7013</del>	oms	101113	<u>3211d3</u>	04113	103	104	4113	otris	10013	<u>3211d3</u>	OTIIS	103	104
				1/64	.016	.0156					33/64	.516	.5156
			1/32		.031	.0312				17/32		.531	.5312
				3/64	.047	.0469					35/64	.547	.5469
		1/16			.062	.0625			9/16			.562	.5625
				5/64	.078	.0781					37/64	.578	.5781
			3/32	5/04	.078	.0938				19/32	37/04	.594	.5938
			3/32	7/64	.109	.1094				19/32	39/64	.609	.6094
	1/8				.125	.1250		5/8				.625	.6250
	1/0				.123	.1230		3/6				.023	.0230
				9/64	.141	.1406					41/64	.641	.6406
			5/32		.156	.1562				21/32		.656	.6562
				11/64	.172	.1719					43/64	.672	.6719
		3/16			.188	.1875			11/16			.688	.6875
				13/64	.203	.2031					45/64	.703	.7031
			7/32		.219	.2188				23/32		.719	.7188
			,,,,,	15/64	.234	.2344				20,02	47/64	.734	.7344
1/4					.250	.2500	3/4					.750	.7500
				17/64	.266	.2656					49/64	.766	.7656
			9/32		.281	.2812				25/32		.781	.7812
				19/64	.297	.2969					51/64	.797	.7969
		5/16			.312	.3125			13/16			.812	.8125
				21/64	.328	.3281					53/64	.828	.8281
			11/32		.344	.3438				27/32		.844	.8438
				23/64	.359	.3594					55/64	.859	.8594
	3/8				.375	.3750		7/8				.875	.8750
				25/64	.391	.3906					57/64	.891	.8906
			13/32		.406	.4062				29/32		.906	.9062
			13/32	27/64	.422	.4219				27132	59/64	.922	.9219
		7/16			.438	.4375			15/16			.938	.9375
		//10			.436	.4373			13/10			.930	.7313
				29/64	.453	.4531					61/64	.953	.9531
			15/32		.469	.4688				31/32		.969	.9688
				31/64	.484	.4844					63/64	.984	.9844
					.500	.5000						1.000	1.0000

# **FIIG Change List**

FIIG Change List, Effective September 3, 2010

Added MRC ENAC with Reply Code G4 to Section I.

Deleted MRCs AWJN, SUWT, SHPN, DENN, and WLBL from Section III.